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# STATISTICAL SUPPLEMENT

## DEPARTMENT OF HEALTH

## STATE OF HAWAII

This is the statistical supplement to the descriptive report
published in a separate volume.

Anyone who would like additional information may
write directly to the office concerned.

1981*

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*Unless otherwise stated, data included in this report are for the
calendar year 1981. Publication date, October 1982.

Cover: Watercolor painting of a typical Hawaiian seascape
by Mr. George H. Tokuyama, Assistant Chief, Research and Statistics Office

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# RESEARCH AND STATISTICS OFFICE

## VITAL STATISTICS SUMMARY, 1981

### Population

The provisional estimate of the total resident population of the State of Hawaii as of July 1, 1981 was 981,000, an increase of .9 of 1 percent over the revised July 1, 1980 total of 972,600 and 27.4 percent over the 769,913 total reported by the United States Census Bureau for April 1, 1970.

The average annual increase in the resident population between April 1, 1970 and July 1, 1981 was approximately 2.3 percent a year for the State of Hawaii as compared to approximately 1.9 percent for the nation as a whole.

### Births

A total of 18,230 live births occurred in the state during the calendar year 1981 as compared to 18,216 for 1980, an increase of less than .1 of 1 percent. The 18,230 births represented the highest number of births ever recorded in the state.

Births to residents of Hawaii numbered 18,174 in 1981 as compared with 18,120 for the previous year, an increase of .3 of 1 percent.

The 1981 crude resident live birth rate for Hawaii was 18.5 per 1,000 resident population as compared to the revised rate of 18.6 for 1980. The crude live birth rate for the United States was 15.8 per 1,000 population for 1980 and 15.9 (provisional) for 1981.

The 1981 crude resident live birth rate was 20.8 per 1,000 resident population for Hawaii County, 18.0 for Honolulu County, 19.3 for Kauai County, and 20.6 for Maui County. The comparable revised rates for 1980 were 18.3 per 1,000 resident population for Hawaii County, 18.3 for Honolulu County, 19.7 for Kauai County, and 18.4 for Maui County.

### Multiple Births

There were 320 multiple births recorded in 1981 and this constituted 1.8 percent of the 18,174 resident births occurring in the state during the year. There was one set of quadruplets in which only two babies were born alive; two sets of triplets, one in which only two babies were born alive; and 152 sets of twins, in seven of which only one baby was born alive.

### Low Birthweight Babies

Babies of low birth weight, those weighing under 2,500 grams (5 pounds, 8 ounces), totaled 1,095 or 6.1 percent of the 17,858 resident single live births recorded for 1981. For 1980, the comparable figure was 6.4 percent.

The median weight of single live births was 7 pounds, 4 ounces for 1981 (3,280 grams) as well as for 1980.

## Attendant at Birth

A total of 280 out of the 18,174 births, or 1.5 percent, were born outside a hospital. Out of the 280 non-hospital births, 70 were delivered outside of a hospital by a physician, 12 were delivered by a midwife and 198 were delivered by a naturopath or a non-professional person. There were five babies delivered in a hospital by a licensed nurse-midwife.

## Month of Prenatal Visit

For the year 1981, 13,916 or 76.6 percent of the 18,174 resident mothers reported that they had visited a physician for prenatal care within the first three months of their pregnancy. Another 18.5 percent of the mothers said that they made their first prenatal visit during the second trimester of their pregnancy while 3.9 percent made their first prenatal visit between the seventh month of pregnancy and the time of delivery. A total of 99 mothers, or .5 of 1 percent, reported that they received no prenatal care.

## Illegitimate Live Births

The illegitimate birth rate among resident live births in the state was 181.7 per 1,000 live births. The 1981 rate was 3.3 percent above the 1980 rate of 175.9. There were 3,303 resident illegitimate live births in the state in 1981 as compared to 3,188 for 1980. The 1981 illegitimate birth rate was 167.6 per 1,000 live births for Honolulu County, 244.2 for Hawaii County, 227.6 on Kauai County and 207.5 for Maui County.

## Standard Fetal Deaths

Standard fetal deaths, i.e., fetal deaths occurring spontaneously or due to unknown causes, totaled 1,661 among resident mothers of the state during 1981 as compared to 1,716 in 1980. The resident standard fetal death rate was 83.7 per 1,000 live births for 1981 and 86.5 for 1980.

## Elective Induced Abortions

A total of 6,692 elective induced abortions was recorded in the State of Hawaii in 1981 as compared to 6,462 for the year 1980.

The Hawaii resident elective induced abortion ratio was 364.1 per 1,000 live births in 1981 and 352.8 per 1,000 live births in 1980. Among the counties, the highest elective induced abortion rate was found in Honolulu County where the abortion ratio was 384.8 per 1,000 live births. The abortion ratio was 313.6 for Maui County, 255.3 for Hawaii County and 365.8 for Kauai County.

Honolulu City continued to register the highest abortion ratio for a geographic area. The rate was 565.0 per 1,000 live births for 1981 and 564.8 for 1980.

The median gestational age of the 6,692 fetuses aborted was 7.8 weeks.

The median age of women having an elective induced abortion was 24.0 years.

Out of 6,692 elective induced abortions, 4,626 or 69.1 percent, were illegitimate.

Among women 15-39 years of age, the highest elective induced abortion ratio was found in the age group 15-17 years (1,023.4 per 1,000 live births) followed by those in the age groups 18-19 years (597.3 per 1,000 live births) and 20-24 years (401.0 per 1,000 live births).

The most commonly used abortion procedure was suction and curettage (91.1 percent).

## Infant Deaths

Resident infant deaths totaled 178 for the year 1981 as compared to 183 for the year 1980. The corresponding infant death rates were 9.8 per 1,000 live births for 1981 and 10.1 for 1980.

The provisional infant death rate for the United States was 11.8 per 1,000 live births for 1981 and 12.6 for 1980.

During 1981, the lowest infant death rate was observed in Honolulu County where the rate was 9.3 per 1,000 live births. The 1981 infant death rate was 10.1 for Hawaii County, 13.4 for Maui County and 10.5 for Kauai County.

Among the larger ethnic groups in the state, the lower infant death rates based on race of mother were experienced by the Japanese (6.8 per 1,000 live births), Filipino (6.4 per 1,000 live births), and Chinese (7.1 per 1,000 live births).

The 1981 neonatal death rate (infant deaths under 28 days of age) for the state was 7.3, slightly higher than the 7.1 rate recorded for 1980.

## Perinatal Mortality Rate

The perinatal mortality rate--the sum of infant deaths under one week of age and standard fetal deaths of 20 or more weeks of gestation (spontaneous abortions and abortions of unknown causes) divided by perinatal events (sum of all resident live births and standard fetal deaths of 20 weeks gestation and over)--was 16.7 per 1,000 perinatal events for 1981 and 15.6 for 1980.

Hawaii County with a 1981 perinatal mortality rate of 14.0 and Kauai County with a rate of 11.8 were areas with rates below that of the state. Honolulu County with a 1981 perinatal mortality rate of 17.2 and Maui County with a rate of 17.9 were areas with rates above the state average of 16.7.

## Deaths

A total of 5,269 deaths was registered in the State of Hawaii in 1981, 1.2 percent above the 5,204 figure reported for 1980. Resident deaths numbered 4,927 compared with 4,903 reported for 1980.

The state resident crude death rate was 5.1 per 1,000 resident population for 1981 as compared to 5.0 for 1980.

For the nation as a whole, the provisional crude death rate for 1981 was 8.7 per 1,000 population, the same as the rate for 1980.

The 1980 crude death rate was 4.7 for Honolulu County, 5.9 for Maui County, 5.9 for Kauai County, and 6.4 for Hawaii County.

## Twelve Leading Causes of Death

The ranking of the leading causes of death for 1981 for the state remained essentially the same as that for the year 1980. The first seven leading causes of death were "Diseases of the Heart" (164.2 per 100,000 population), "Malignant Neoplasms" (123.6), "Cerebrovascular Diseases" (37.2), "All Accidents" (29.3), "Influenza and Pneumonia" (15.9), "Diabetes Mellitus" (12.9), and "Suicides" (8.9 per 100,000 population).

"Perinatal Conditions" (8.9 per 100,000 population), which ranked eighth in 1980, was tied for seventh place in 1981.

"Congenital Anomalies" (8.2 per 100,000 population) climbed from eleventh place in 1980 to ninth place in 1981.

"Cirrhosis of Liver" (7.1 per 100,000 population) dropped from ninth place in 1980 to tenth place in 1981.

"Other Circulatory Diseases" (5.3 per 100,000 population) assumed eleventh position, appearing for the first time among the twelve leading causes of death.

"Homicide and Legal Intervention" (4.8 per 100,000 population), which was ranked tenth in 1980, dropped to twelfth place in 1981.

## Maternal Deaths

There were three maternal deaths recorded in Hawaii for 1981, one in 1980, and no maternal death in 1979. The maternal death rate per 10,000 live births was 1.0 in 1981 and 0.6 in 1980.

## Marriages

A record total of 12,218 marriages was recorded in the state in 1981. The totals were 11,856 for 1980 and 11,678 for 1979. The state crude marriage rates were 12.5 per 1,000 population for 1981, 12.2 for 1980 and 1979. The crude marriage rate for the nation as a whole was 10.6 in 1981 and in 1980.

The highest marriage rates were observed in Kauai County and Maui County where the 1981 rates were 31.2 per 1,000 population and 18.0 per 1,000 population, respectively.

Among the grooms, 3,103 or 25.4 percent were non-residents while among the brides, 3,033 or 24.8 percent were non-residents.

The median age for 1981 -- 28.3 years for grooms and 26.0 years for brides.

The out-marriage rate, i.e. person of one race marrying person of another race, was 36.0 percent for the year 1981.

## Divorces

The upward trend in divorces, which started in 1968 with 1,865 divorces recorded, reached its peak in 1979 when a high of 5,055 divorces were recorded. For the year 1981, a total of 4,253 was recorded, a drop of 4.2 percent from the previous year. The crude divorce rate was 4.3 per 1,000 population in 1981 and 4.6 in 1980.

The provisional crude divorce rate for the United States was 5.3 per 1,000 population in 1981 and 5.2 in 1980.

The 1981 crude divorce rate was 5.4 per 1,000 population for Maui County, 4.5 for Hawaii County, 4.2 for Honolulu County and 4.6 for Kauai County.

## TABLE 1

## ESTIMATED POPULATION BY RESIDENCE AND MILITARY STATUS
State of Hawaii 1970, 1980 and 1981

| | Resident Population | | | | |
|---|---|---|---|---|---|
| | Total | | Armed Forces[1] | Civilian[2] | |
| APRIL 1, 1970 (U.S. CENSUS) | Number | Percent | Number | Number | Percent |
| State Total | 769,913 | 100.0 | 55,142 | 714,771 | 100.0 |
| City & County of Honolulu | 630,528 | 81.9 | 54,809 | 575,719 | 80.5 |
| Hawaii County | 63,468 | 8.2 | 140 | 63,328 | 8.9 |
| Kauai County | 29,761 | 3.9 | 134 | 29,627 | 4.1 |
| Kauai Island | 29,524 | 3.8 | 134 | 29,390 | 4.1 |
| Niihau Island | 237 | 0.0 | - | 237 | 0.0 |
| Maui County[3] | 46,156 | 6.0 | 59 | 46,097 | 6.5 |
| Lanai Island | 2,204 | 0.3 | - | 2,204 | 0.3 |
| Maui Island | 38,691 | 5.0 | 59 | 38,632 | 5.4 |
| Molokai Island[3] | 5,261 | 0.7 | - | 5,261 | 0.8 |
| APRIL 1, 1980 (U.S. CENSUS) | | | | | |
| State Total | 965,000 | 100.0 | 61,019 | 903,981 | 100.0 |
| City & County of Honolulu | 762,874 | 79.1 | 60,666 | 702,208 | 77.7 |
| Hawaii County | 92,053 | 9.5 | 162 | 91,891 | 10.2 |
| Kauai County[4] | 39,082 | 4.0 | 164 | 38,918 | 4.3 |
| Maui County[3] | 70,991 | 7.4 | 27 | 70,964 | 7.8 |
| Lanai Island | 2,119 | 0.2 | - | 2,119 | 0.2 |
| Maui Island | 62,823 | 6.5 | 27 | 62,796 | 6.9 |
| Molokai Island[3] | 6,049 | 0.6 | - | 6,049 | 0.7 |

| | PROVISIONAL POPULATION JULY 1, 1980 | | PROVISIONAL POPULATION JULY 1, 1981 | |
|---|---|---|---|---|
| | Number | Percent[5] | Number | Percent[5] |
| State Total | 973,000 | 100.0 | 981,000 | 100.0 |
| City & County of Honolulu | 768,000 | 78.9 | 774,000 | 78.9 |
| Hawaii County | 93,700 | 9.6 | 95,000 | 9.7 |
| Kauai County[4] | 39,500 | 4.1 | 39,400 | 4.0 |
| Maui County[3] | 71,800 | 7.4 | 72,600 | 7.4 |
| Lanai Island | 2,139 | 0.2 | 2,180 | 0.2 |
| Maui Island | 63,558 | 6.5 | 64,230 | 6.6 |
| Molokai Island[3] | 6,103 | 0.6 | 6,190 | 0.6 |

[1] Includes Navy and Coast Guard crews

[2] Includes military dependents (1970-61,858; 1980-64,023; 1981-64,344)

[3] Includes Kalawao County (Kalaupapa 1970-172; 1980-144; 1981-160)

[4] Estimate for Niihau Island: 226 as of July 1, 1980 and 260 as of July 1, 1981)

[5] Percentage distribution based partly on rounded figures

Source: Hawaii State Department of Planning and Economic Development, Statistical Report 147; Preliminary Intercensal Estimates, 1970-1980, July 9, 1981; Statistical Report 150, November 1981.

FIGURE 1
BIRTHS OCCURRING IN HAWAII 1900-1981

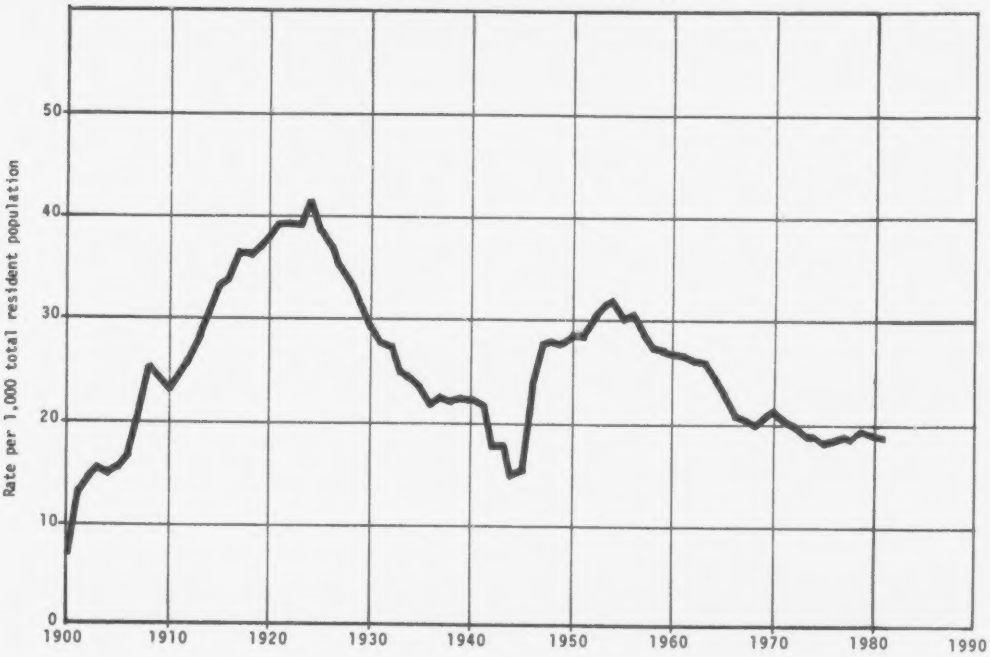
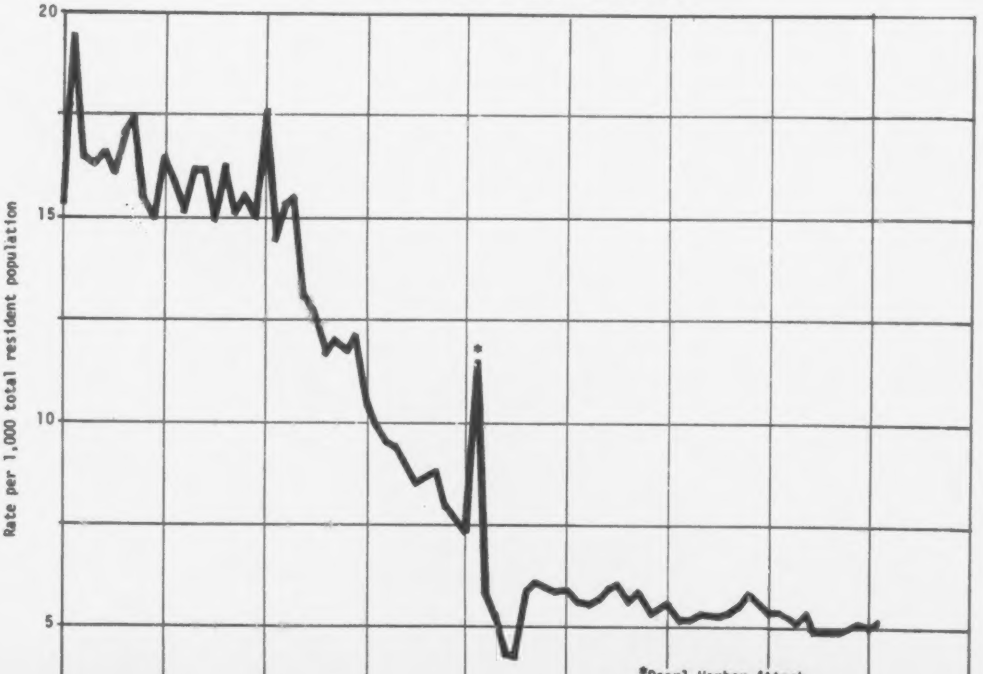


FIGURE 2
DEATHS OCCURRING IN HAWAII 1900-1981



*Pearl Harbor Attack
December 7, 1941

TABLE 2

LIVE BIRTHS BY PLACE OF OCCURRENCE REALLOCATED TO PLACE OF RESIDENCE AND RACE OF CHILD
STATE OF HAWAII, 1981

| GEOGRAPHIC AREA | PLACE OF OCC-URRENCE | BIRTH BY PLACE OF RESIDENCE | | RACE OF CHILD | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NO. | RATE* | CAU-CASIAN | HAWN | PART HAWN | CHI-NESE | FILI-PINO | JAPA-NESE | PUERT RICAN | KO-REAN | SA-MOAN | NEGRO | PORT-UGESE | VIET MESE | OTHER | UN-KNOWN |
| TOTAL RECORDED | 18230 | 18230 | | 3796 | 46 | 5697 | 727 | 2858 | 2529 | 168 | 343 | 513 | 658 | 194 | 97 | 600 | 4 |
| STATE OF HAWAII | 18230 | 18174 | 18.5 | 3774 | 46 | 5690 | 725 | 2856 | 2526 | 168 | 343 | 512 | 652 | 194 | 97 | 587 | 4 |
| COUNTY OF HAWAII | 1945 | 1978 | 20.8 | 385 | 5 | 910 | 25 | 246 | 257 | 16 | 14 | 3 | 11 | 47 | 1 | 57 | 1 |
| CITY OF HILO | 1199 | 691 | 19.0 | 59 | | 373 | 14 | 51 | 140 | 5 | 5 | 2 | 4 | 17 | | 21 | |
| BALANCE OF COUNTY | 746 | 1287 | 22.0 | 326 | 5 | 537 | 11 | 195 | 117 | 11 | 9 | 1 | 7 | 30 | 1 | 36 | 1 |
| COUNTY OF HONOLULU | 14154 | 13947 | 18.0 | 2994 | 26 | 3826 | 667 | 2191 | 1980 | 133 | 312 | 502 | 627 | 102 | 95 | 491 | 1 |
| CITY OF HONOLULU | 12657 | 5504 | 14.9 | 962 | 1 | 1259 | 438 | 911 | 948 | 30 | 200 | 226 | 172 | 27 | 74 | 256 | |
| BALANCE OF COUNTY | 1497 | 8443 | 20.9 | 2032 | 25 | 2567 | 229 | 1280 | 1032 | 103 | 112 | 276 | 455 | 75 | 21 | 235 | 1 |
| COUNTY OF KALAWAO | | | | | | | | | | | | | | | | | |
| COUNTY OF KAUAI | 752 | 760 | 19.2 | 130 | 8 | 280 | 10 | 177 | 118 | 8 | 5 | 2 | 3 | 12 | 1 | 6 | |
| ISLAND OF KAUAI | 752 | 759 | 19.3 | 130 | 7 | 280 | 10 | 177 | 118 | 8 | 5 | 2 | 3 | 12 | 1 | 6 | |
| ISLAND OF NIIHAU | | 1 | 4.3 | | 1 | | | | | | | | | | | | |
| COUNTY OF MAUI | 1379 | 1489 | 20.6 | 265 | 7 | 674 | 23 | 242 | 171 | 11 | 12 | 5 | 11 | 33 | | 33 | 2 |
| ISLAND OF LANAI | 5 | 19 | 8.7 | | | 5 | 1 | 10 | 3 | | | | | | | | |
| ISLAND OF MAUI | 1283 | 1318 | 20.5 | 257 | 2 | 554 | 21 | 221 | 158 | 11 | 12 | 5 | 11 | 32 | | 32 | 2 |
| ISLAND OF MOLOKAI (EXCL. KALAWAO) | 91 | 152 | 25.2 | 8 | 5 | 115 | 1 | 11 | 10 | | | | | 1 | | 1 | |
| NONRESIDENT | | 52 | | 22 | | 5 | 2 | 1 | 3 | | | 1 | 5 | | | 13 | |
| UNKNOWN RESIDENCE | | 4 | | | | 2 | | 1 | | | | | 1 | | | | |

*NUMBER OF BIRTHS PER 1,000 RESIDENT POPULATION

TABLE 3

LIVE BIRTHS BY PLACE OF OCCURRENCE REALLOCATED TO PLACE OF RESIDENCE AND RACE OF MOTHER
STATE OF HAWAII, 1981

| GEOGRAPHIC AREA | PLACE OF OCC-URRENCE | BIRTH BY PLACE OF RESIDENCE | | RACE OF MOTHER | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NO. | RATE* | CAU-CASIAN | HAWN | PART HAWN | CHI-NESE | FILI-PINO | JAPA-NESE | PUERT RICAN | KO-REAN | SA-MOAN | NEGRO | PORT-GUESE | VIET MESE | OTHER | UN-KNOWN |
| TOTAL RECORDED | 18230 | 18230 | | 5128 | 137 | 4021 | 701 | 3107 | 2658 | 148 | 411 | 494 | 464 | 233 | 111 | 593 | 4 |
| STATE OF HAWAII | 18230 | 18174 | 18.5 | 5103 | 137 | 4016 | 700 | 3105 | 2654 | 148 | 411 | 492 | 478 | 233 | 111 | 582 | 4 |
| COUNTY OF HAWAII | 1945 | 1978 | 20.8 | 552 | 26 | 619 | 31 | 306 | 274 | 23 | 13 | 2 | 7 | 63 | | 61 | 1 |
| CITY OF HILO | 1199 | 691 | 19.0 | 106 | 9 | 255 | 17 | 72 | 154 | 7 | 6 | 1 | 4 | 31 | | 29 | |
| BALANCE OF COUNTY | 746 | 1787 | 22.0 | 446 | 17 | 364 | 14 | 234 | 120 | 16 | 7 | 1 | 3 | 32 | | 32 | 1 |
| COUNTY OF HONOLULU | 14154 | 13947 | 18.0 | 3919 | 66 | 2756 | 644 | 2360 | 2062 | 103 | 385 | 485 | 465 | 110 | 109 | 482 | 1 |
| CITY OF HONOLULU | 12657 | 5504 | 14.9 | 1331 | 9 | 897 | 398 | 943 | 975 | 30 | 234 | 214 | 123 | 31 | 80 | 239 | |
| BALANCE OF COUNTY | 1497 | 8443 | 20.9 | 2588 | 57 | 1859 | 246 | 1417 | 1087 | 73 | 151 | 271 | 342 | 79 | 29 | 243 | 1 |
| COUNTY OF KALAWAO | | | | | | | | | | | | | | | | | |
| COUNTY OF KAUAI | 752 | 760 | 19.3 | 218 | 17 | 178 | 7 | 181 | 126 | 6 | 3 | 1 | 2 | 15 | 1 | 5 | |
| ISLAND OF KAUAI | 752 | 759 | 19.4 | 218 | 16 | 178 | 7 | 181 | 126 | 6 | 3 | 1 | 2 | 15 | 1 | 5 | |
| ISLAND OF NIIHAU | | 1 | 4.3 | | 1 | | | | | | | | | | | | |
| COUNTY OF MAUI | 1379 | 1489 | 20.6 | 414 | 28 | 463 | 18 | 258 | 192 | 16 | 10 | 4 | 4 | 45 | 1 | 34 | 2 |
| ISLAND OF LANAI | 5 | 19 | 8.7 | 3 | | 4 | | 9 | 3 | | | | | | | | |
| ISLAND OF MAUI | 1283 | 1318 | 20.5 | 392 | 17 | 364 | 15 | 234 | 181 | 16 | 10 | 3 | 4 | 45 | 1 | 34 | 2 |
| ISLAND OF MOLOKAI (EXCL. KALAWAO) | 91 | 152 | 25.2 | 19 | 11 | 95 | 3 | 15 | 8 | | | 1 | | | | | |
| NONRESIDENT | | 52 | | 25 | | 3 | 1 | 1 | 4 | | | 2 | 5 | | | 11 | |
| UNKNOWN RESIDENCE | | 4 | | | | 2 | | 1 | | | | | 1 | | | | |

*NUMBER OF BIRTHS PER 1,000 RESIDENT POPULATION

### TABLE 4

### LIVE BIRTHS BY RACE OF MOTHER AND TYPE OF CONGENITAL MALFORMATION
### STATE OF HAWAII, 1981

| TYPE OF CONGENITAL MALFORMATION | TOTAL | PERCENT | RACE OF MOTHER | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | CAU CASIAN | HAWN | PART HAWN | CHIN- ESE | FILI- PINO | JAPAN- ESE | PUERTO RICAN | KOREAN | SAMOAN | NEGRO | PORTU- GUESE | VIET- NAMESE | OTHER | UN- KNOWN |
| TOTAL | 18,174 | 100.0 | 5,103 | 137 | 4,016 | 700 | 3,105 | 2,654 | 148 | 411 | 492 | 478 | 233 | 110 | 582 | |
| PERCENT | 100.0 | | 28.1 | .8 | 22.1 | 3.9 | 17.1 | 14.6 | .8 | 2.3 | 2.7 | 2.6 | 1.3 | .6 | 3.2 | |
| NO MALFORMATION | 18,009 | 99.1 | 5,059 | 135 | 3,979 | 697 | 3,075 | 2,634 | 143 | 406 | 488 | 471 | 231 | 109 | 577 | |
| ONE OR MORE MALFORMATIONS | 165 | .9 | 44 | 2 | 37 | 3 | 30 | 20 | 5 | 5 | 4 | 7 | 2 | 1 | 5 | |
| ANENCEPHALUS (01) | 8 | | 3 | | 2 | 1 | | | | | 1 | | | | 1 | |
| SPINA BIFIDA, MENINGOCELE (02) | 3 | | 3 | | | | | | | | | | | | | |
| HYDROCEPHALUS (03) | 10 | .1 | 4 | | 3 | | 2 | | | | | 1 | | | | |
| CIRCULATORY SYSTEM (06, 07) | 12 | .1 | 1 | 1 | 3 | | 2 | 3 | | 1 | 1 | | | | | |
| CLEFT PALATE & HARELIP (09) | 13 | .1 | 4 | | 3 | | 2 | 2 | | | | | 1 | | 1 | |
| DIGESTIVE SYSTEM (10) | 4 | | 1 | | 3 | | | | | | | | | | | |
| GENITO-URINARY (11) | 12 | .1 | 4 | | 5 | | | 1 | | | 1 | | | 1 | | |
| CLUBFOOT (12) | 9 | | 3 | 1 | 3 | | 1 | | | | | 1 | | | | |
| BONE & JOINT (13, 14) | 38 | .2 | 10 | | 6 | 1 | 7 | 7 | 3 | 1 | | 3 | | | | |
| MULTIPLE ANOMALIES (16, 17, 18) | 12 | .1 | 2 | | | | 4 | 1 | 1 | 2 | | | 1 | | 1 | |
| DOWNS DISEASE (15) | 4 | | 1 | | | | 2 | | | | | | | | 1 | |
| OTHER AND UNSPECIFIED (RESIDUAL) | 48 | .3 | 10 | | 11 | 1 | 13 | 6 | 1 | 1 | 1 | 2 | | | 2 | |

* IF ANY INFANT HAS MORE THAN ONE CONGENITAL MALFORMATION, THE SUM OF THE PERCENTAGES WILL BE GREATER THAN 100

### TABLE 5

### LIVE BIRTHS BY PLACE AND MONTH OF OCCURRENCE
### STATE OF HAWAII, 1981

| GEOGRAPHIC AREA | TOTAL | PERCENT | MONTH OF BIRTH | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | UNK |
| TOTAL RECORDED | 18230 | 100.0 | 1509 | 1418 | 1439 | 1421 | 1506 | 1444 | 1533 | 1581 | 1682 | 1564 | 1465 | 1668 | |
| STATE OF HAWAII | 18230 | 100.0 | 1509 | 1418 | 1439 | 1421 | 1506 | 1444 | 1533 | 1581 | 1682 | 1564 | 1465 | 1668 | |
| PERCENT | | | | | | | | | | | | | | | |
| COUNTY OF HAWAII | 1945 | 10.7 | 174 | 140 | 150 | 138 | 173 | 132 | 145 | 176 | 198 | 172 | 167 | 180 | |
| CITY OF HILO | 1199 | 6.6 | 108 | 88 | 87 | 85 | 102 | 77 | 93 | 107 | 109 | 124 | 104 | 115 | |
| BALANCE OF COUNTY | 746 | 4.1 | 66 | 52 | 63 | 53 | 71 | 55 | 52 | 69 | 89 | 48 | 63 | 65 | |
| COUNTY OF HONOLULU | 14154 | 77.6 | 1155 | 1118 | 1098 | 1108 | 1185 | 1138 | 1207 | 1222 | 1290 | 1205 | 1126 | 1302 | |
| CITY OF HONOLULU | 12657 | 69.4 | 1027 | 1006 | 978 | 995 | 1055 | 985 | 1078 | 1111 | 1177 | 1080 | 991 | 1174 | |
| BALANCE OF COUNTY | 1497 | 8.2 | 128 | 112 | 120 | 113 | 130 | 153 | 129 | 111 | 113 | 125 | 135 | 128 | |
| COUNTY OF KALAWAO | | | | | | | | | | | | | | | |
| COUNTY OF KAUAI | 752 | 4.1 | 58 | 62 | 53 | 65 | 50 | 71 | 57 | 65 | 76 | 63 | 69 | 63 | |
| ISLAND OF KAUAI | 752 | 4.1 | 58 | 62 | 53 | 65 | 50 | 71 | 57 | 65 | 76 | 63 | 69 | 63 | |
| ISLAND OF NIIHAU | | | | | | | | | | | | | | | |
| COUNTY OF MAUI | 1379 | 7.6 | 122 | 98 | 138 | 110 | 98 | 103 | 124 | 118 | 118 | 124 | 103 | 123 | |
| ISLAND OF LANAI | 5 | | | | | | 1 | | 1 | | 2 | 1 | | | |
| ISLAND OF MAUI | 1283 | 7.0 | 118 | 88 | 126 | 104 | 90 | 93 | 117 | 111 | 107 | 117 | 98 | 114 | |
| ISLAND OF MOLOKAI (EXCL. KALAWAO) | 91 | .5 | 4 | 10 | 12 | 6 | 7 | 10 | 6 | 7 | 9 | 6 | 5 | 9 | |
| NONRESIDENT | | | | | | | | | | | | | | | |
| UNKNOWN RESIDENCE | | | | | | | | | | | | | | | |

### TABLE 6

### LIVE BIRTHS BY RACE OF CHILD AND ATTENDANT AT BIRTH
### STATE OF HAWAII. 1981

| RACE OF CHILD | TOTAL NO. OF BIRTHS | ATTENDANT AT BIRTH |  |  |  |  | PERCENT OF BIRTHS |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  | OD OR MD IN HOSP. | OD OR MD NOT HOSP. | MIDWIFE |  | OTHER | OD OR MD IN HOSP. | OD OR MD NOT HOSP | MIDWIFE |  | OTHER |
|  |  |  |  | IN HOSP. | NOT HOSP. |  |  |  | IN HOSP. | NOT HOSP. |  |
| ALL RACES | 18.174 | 17.889 | 70 | 5 | 12 | 198 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| CAUCASIAN | 3.775 | 3.614 | 20 | 3 | 10 | 128 | 20.2 | 28.6 | 60.0 | 83.3 | 64.6 |
| HAWAIIAN | 47 | 47 |  |  |  |  | .3 |  |  |  |  |
| PART HAWN | 5.689 | 5.630 | 33 | 1 | 2 | 23 | 31.5 | 47.1 | 20.0 | 16.7 | 11.6 |
| CHINESE | 725 | 718 | 1 |  |  | 6 | 4.0 | 1.4 |  |  | 3.0 |
| FILIPINO | 2.857 | 2.845 | 2 |  |  | 10 | 15.9 | 2.9 |  |  | 5.1 |
| JAPANESE | 2.526 | 2.510 | 4 |  |  | 12 | 14.0 | 5.7 |  |  | 6.1 |
| PUERTO RCN | 168 | 168 |  |  |  |  | .9 |  |  |  |  |
| KOREAN | 343 | 341 |  |  |  | 2 | 1.9 |  |  |  | 1.0 |
| SAMOAN | 512 | 508 | 2 |  |  | 2 | 2.8 | 2.9 |  |  | 1.0 |
| NEGRO | 652 | 641 | 2 |  |  | 9 | 3.6 | 2.9 |  |  | 4.5 |
| PORTUGESE | 194 | 194 |  |  |  |  | 1.1 |  |  |  |  |
| VIETNAMESE | 95 | 93 |  |  |  | 2 | .5 |  |  |  | 1.0 |
| OTHER | 587 | 576 | 6 | 1 |  | 4 | 3.2 | 8.6 | 20.0 |  | 2.0 |
| UNKNOWN | 4 | 4 |  |  |  |  |  |  |  |  |  |

### TABLE 7

### LIVE BIRTHS BY RACE OF FATHER AND OF MOTHER
### STATE OF HAWAII, 1981

| RACE OF MOTHER |  | ALL RACES |  | RACE OF FATHER |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  | NUMBER | PERCENT | CAU-CASIAN | HAWN | PART HAWN | CHI-NESE | FILI-PINO | JAPA-NESE | PUERTO RICAN | KOREAN | SAMOAN | NEGRO | PORTU-GUESE | VIET-NAMESE | OTHER | UNKNOWN |
| ALL RACES | NUMBER | 18.174 | 100.0 | 4.778 | 186 | 3.150 | 658 | 2.671 | 2.461 | 213 | 243 | 465 | 667 | 245 | 67. | 560 | 1.770 |
|  | PERCENT | 100.0 |  | 26.3 | 1.0 | 17.3 | 3.6 | 14.7 | 13.5 | 1.2 | 1.3 | 2.6 | 3.7 | 1.6 | .4 | 3.1 | 9.7 |
| CAUCASIAN |  | 5.103 | 28.1 | 3.350 | 46 | 513 | 73 | 221 | 239 | 43 | 23 | 35 | 79 | 31 | 2 | 75 | 373 |
| HAWAIIAN |  | 137 | .8 | 25 | 24 | 37 |  | 9 | 4 | 1 |  | 4 | 4 | 5 |  | 2 | 22 |
| PART HAWN |  | 4.016 | 22.1 | 365 | 78 | 1.614 | 64 | 402 | 288 | 59 | 15 | 73 | 73 | 116 | 1 | 117 | 751 |
| CHINESE |  | 700 | 3.9 | 111 | 2 | 65 | 304 | 29 | 136 | 3 | 8 | 5 | 3 | 6 |  | 8 | 20 |
| FILIPINO |  | 3.105 | 17.1 | 343 | 8 | 370 | 42 | 1.763 | 146 | 31 | 10 | 13 | 39 | 39 |  | 44 | 257 |
| JAPANESE |  | 2.654 | 14.6 | 264 | 10 | 327 | 136 | 157 | 1.524 | 12 | 45 | 13 | 9 | 43 |  | 19 | 95 |
| PUERTO RCN |  | 148 | .8 | 22 | 2 | 19 | 2 | 17 | 4 | 48 | 1 | 1 | 9 | 3 |  | 3 | 17 |
| KOREAN |  | 411 | 2.3 | 98 |  | 34 | 23 | 14 | 69 | 3 | 136 |  | 11 | 2 |  | 4 | 17 |
| SAMOAN |  | 492 | 2.7 | 27 | 1 | 23 |  | 8 | 3 | 5 | 1 | 308 | 11 | 2 |  | 6 | 57 |
| NEGRO |  | 478 | 2.6 | 24 | 1 | 3 |  | 3 | 2 | 2 |  |  | 412 | 1 |  | 1 | 29 |
| PORTUGUESE |  | 233 | 1.3 | 30 | 3 | 70 | 5 | 27 | 22 | 3 | 4 | 1 |  | 32 |  | 5 | 31 |
| VIETNAMESE |  | 110 | .6 | 18 | 1 | 3 | 3 | 1 | 8 |  |  |  |  |  | 64 | 1 | 11 |
| OTHER |  | 582 | 3.2 | 101 | 9 | 72 | 6 | 20 | 16 | 3 |  | 12 | 17 | 5 |  | 275 | 46 |
| UNKNOWN |  | 5 |  |  | 1 |  |  |  |  |  |  |  |  |  |  |  | 4 |
| FATHER AND MOTHER OF SAME RACE |  | 9.858 | 54.2 | 3.350 | 24 | 1.614 | 304 | 1.763 | 1.524 | 48 | 136 | 308 | 412 | 32 | 64 | 275 | 4 |

## TABLE 8

### LIVE BIRTHS BY RACE OF MOTHER AND MONTH OF FIRST PRENATAL VISIT
### STATE OF HAWAII, 1981

| RACE OF MOTHER | | TOTAL NO. OF BIRTHS | | MONTH OF FIRST PRENATAL VISIT | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NUMBER | PERCENT | 1ST | 2ND | 3RD | 4TH | 5TH | 6TH | 7TH | 8TH | 9TH | NONE | NOT STATED | FIRST 3 MONTHS |
| ALL RACES | NUMBER | 18.174 | 100.0 | 2.587 | 6.943 | 4.386 | 1.726 | 1.049 | 589 | 387 | 259 | 69 | 99 | 80 | 13.916 |
| | PERCENT | 100.0 | | 14.2 | 38.2 | 24.1 | 9.5 | 5.8 | 3.2 | 2.1 | 1.4 | .4 | .5 | .4 | 76.6 |
| CAUCASIAN | | 5.103 | 28.1 | 778 | 2.092 | 1.249 | 444 | 246 | 128 | 73 | 44 | 10 | 24 | 15 | 4.119 |
| HAWAIIAN | | 137 | .8 | 12 | 32 | 27 | 20 | 18 | 6 | 12 | 6 | | 3 | 1 | 71 |
| PART HAWN | | 4.016 | 22.1 | 422 | 1.343 | 1.042 | 464 | 314 | 178 | 111 | 77 | 22 | 28 | 15 | 2.807 |
| CHINESE | | 700 | 3.9 | 138 | 330 | 134 | 38 | 28 | 13 | 9 | 3 | 2 | 1 | 4 | 602 |
| FILIPINO | | 3.105 | 17.1 | 426 | 1.085 | 822 | 350 | 193 | 106 | 62 | 33 | 8 | 11 | 9 | 2.333 |
| JAPANESE | | 2.654 | 14.6 | 481 | 1.267 | 550 | 162 | 97 | 34 | 27 | 14 | 5 | 6 | 11 | 2.298 |
| PUERTO RCN | | 148 | .8 | 24 | 53 | 40 | 14 | 5 | 3 | 3 | 4 | | 1 | 1 | 117 |
| KOREAN | | 411 | 2.3 | 74 | 146 | 96 | 33 | 19 | 17 | 11 | 9 | 1 | 2 | 3 | 316 |
| SAMOAN | | 492 | 2.7 | 43 | 99 | 90 | 54 | 46 | 54 | 38 | 39 | 10 | 12 | 7 | 232 |
| NEGRO | | 478 | 2.6 | 83 | 164 | 121 | 54 | 21 | 11 | 8 | 9 | | 3 | 4 | 368 |
| PORTUGUESE | | 233 | 1.3 | 25 | 118 | 59 | 17 | 6 | 3 | 3 | 1 | 1 | | | 202 |
| VIETNAMESE | | 110 | .6 | 17 | 47 | 21 | 8 | 8 | 3 | 3 | 2 | | | 1 | 85 |
| OTHER | | 562 | 3.2 | 64 | 164 | 135 | 68 | 48 | 33 | 27 | 18 | 10 | 8 | 7 | 363 |
| UNKNOWN | | 5 | | | 3 | | | | | | | | | 2 | 3 |

## TABLE 9

### LIVE BIRTHS BY RACE OF MOTHER AND NUMBER OF CHILDREN BORN TO MOTHER
### STATE OF HAWAII, 1981

| RACE OF MOTHER | | TOTAL NO. OF BIRTHS | | TOTAL NUMBER OF CHILDREN BORN TO MOTHER | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NUMBER | PERCENT | -1- | -2 | -3- | -4- | -5- | -6- | -7- | -8- | -9- | -10- | -11- | 12 OR MORE | UNK |
| ALL RACES | NUMBER | 18.174 | 100.0 | 5.990 | 5.490 | 3.389 | 1.783 | 780 | 368 | 196 | 84 | 39 | 25 | 12 | 11 | 7 |
| | PERCENT | 100.0 | | 33.0 | 30.2 | 18.6 | 9.8 | 4.3 | 2.0 | 1.1 | .5 | .2 | .1 | .1 | .1 | |
| CAUCASIAN | | 5.103 | 28.1 | 1.757 | 1.549 | 954 | 483 | 178 | 100 | 42 | 22 | 8 | 4 | 3 | | 3 |
| HAWAIIAN | | 137 | .8 | 28 | 40 | 28 | 12 | 14 | 8 | 4 | 2 | | | 1 | | |
| PART HAWN | | 4.016 | 22.1 | 1.213 | 1.129 | 767 | 430 | 236 | 114 | 70 | 27 | 11 | 9 | 5 | 4 | 1 |
| CHINESE | | 700 | 3.9 | 261 | 219 | 121 | 62 | 20 | 9 | 6 | 1 | | | | | 1 |
| FILIPINO | | 3.105 | 17.1 | 1.047 | 947 | 578 | 311 | 119 | 56 | 20 | 13 | 6 | 4 | 2 | 2 | |
| JAPANESE | | 2.654 | 14.6 | 939 | 906 | 496 | 215 | 66 | 18 | 12 | 1 | | 1 | | | |
| PUERTO RCN | | 148 | .8 | 44 | 43 | 26 | 23 | 7 | 2 | 3 | | | | | | |
| KOREAN | | 411 | 2.3 | 125 | 128 | 80 | 41 | 20 | 9 | 2 | 2 | | 1 | | 3 | |
| SAMOAN | | 492 | 2.7 | 143 | 111 | 72 | 54 | 39 | 25 | 23 | 13 | 7 | 4 | 1 | | |
| NEGRO | | 478 | 2.6 | 156 | 157 | 103 | 38 | 17 | 4 | 1 | | 1 | 1 | | | |
| PORTUGUESE | | 233 | 1.3 | 68 | 78 | 37 | 30 | 14 | 4 | 1 | 1 | | | | | |
| VIETNAMESE | | 110 | .6 | 31 | 28 | 19 | 15 | 7 | 3 | 5 | 1 | 1 | | | | |
| OTHER | | 582 | 3.2 | 176 | 154 | 107 | 69 | 43 | 16 | 7 | 1 | 5 | 1 | | 2 | 1 |
| UNKNOWN | | 5 | | 2 | 1 | 1 | | | | | | | | | | 1 |

## TABLE 10

### LIVE BIRTHS BY RACE OF MOTHER AND NUMBER OF CHILDREN BORN ALIVE TO MOTHER STATE OF HAWAII, 1981

| RACE OF MOTHER | | TOTAL NO. OF BIRTHS | | TOTAL NUMBER OF CHILDREN BORN ALIVE | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NUMBER | PERCENT | -1- | -2 | -3- | -4- | -5- | -6- | -7- | -8- | -9- | -10- | -11- | 12 OR MORE | UNK |
| ALL RACES | NUMBER | 18.174 | 100.0 | 7,843 | 5.680 | 2.803 | 1.126 | 384 | 181 | 88 | 24 | 21 | 8 | 6 | 4 | 6 |
| | PERCENT | 100.0 | | 43.2 | 31.3 | 15.4 | 6.2 | 2.1 | 1.0 | .5 | .1 | .1 | | | | |
| CAUCASIAN | | 5.103 | 28.1 | 2,449 | 1,572 | 708 | 248 | 60 | 38 | 18 | 3 | 2 | 2 | 1 | | 2 |
| HAWAIIAN | | 137 | .8 | 36 | 43 | 24 | 15 | 11 | 4 | 3 | | | | 1 | | |
| PART HAWN | | 4.016 | 22.1 | 1,545 | 1,151 | 725 | 337 | 145 | 61 | 35 | 8 | 5 | 1 | 1 | 1 | 1 |
| CHINESE | | 700 | 3.9 | 321 | 237 | 86 | 41 | 9 | 1 | 4 | | | | | | 1 |
| FILIPINO | | 3.105 | 17.1 | 1,267 | 1,003 | 520 | 207 | 56 | 27 | 7 | 6 | 6 | 2 | 2 | 2 | |
| JAPANESE | | 2.654 | 14.6 | 1,254 | 934 | 347 | 92 | 21 | 6 | | | | | | | |
| PUERTO RCN | | 148 | .8 | 57 | 47 | 27 | 13 | 1 | 2 | 1 | | | | | | |
| KOREAN | | 411 | 2.3 | 193 | 142 | 56 | 16 | 3 | | | | 1 | | | | |
| SAMOAN | | 492 | 2.7 | 160 | 116 | 77 | 52 | 39 | 23 | 15 | 3 | 4 | 2 | 1 | | |
| NEGRO | | 478 | 2.6 | 212 | 167 | 69 | 22 | 5 | 1 | | 1 | 1 | | | | |
| PORTUGUESE | | 233 | 1.3 | 93 | 71 | 41 | 20 | 6 | 1 | 1 | | | | | | |
| VIETNAMESE | | 110 | .6 | 34 | 37 | 17 | 12 | 3 | 3 | 2 | 1 | 1 | | | | |
| OTHER | | 582 | 3.2 | 220 | 158 | 106 | 51 | 25 | 14 | 2 | 2 | 1 | 1 | | 1 | 1 |
| UNKNOWN | | 5 | | 2 | 2 | | | | | | | | | | | 1 |

## TABLE 11

### LIVE BIRTHS BY AGE OF MOTHER AND NUMBER OF CHILDREN BORN STATE OF HAWAII, 1981

| AGE OF MOTHER | TOTAL | PERCENT | TOTAL NUMBER OF CHILDREN BORN TO MOTHER | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | -1- | -2- | -3- | -4- | -5- | -6- | -7- | -8- | -9- | -10- | -11- | > 11 | UNK |
| ALL AGES | 18.174 | 100.0 | 5,990 | 5,490 | 3,389 | 1.783 | 780 | 368 | 196 | 84 | 39 | 25 | 12 | 11 | 7 |
| PERCENT | 100.0 | | 33.0 | 30.2 | 18.6 | 9.8 | 4.3 | 2.0 | 1.1 | .5 | .2 | .1 | .1 | .1 | |
| UNDER 15 | 18 | .1 | 17 | 1 | | | | | | | | | | | |
| 15-17 | 555 | 3.1 | 451 | 92 | 11 | 1 | | | | | | | | | |
| 18-19 | 1.490 | 8.2 | 952 | 392 | 111 | 30 | 4 | | 1 | | | | | | |
| 20-24 | 5.808 | 32.0 | 2,228 | 2,022 | 984 | 388 | 128 | 42 | 9 | 2 | 2 | 1 | 1 | | 1 |
| 25-29 | 5.686 | 31.3 | 1.613 | 1,733 | 1.178 | 643 | 294 | 120 | 63 | 31 | 2 | 2 | 2 | | 5 |
| 30-34 | 3.498 | 19.2 | 609 | 1,040 | 863 | 508 | 232 | 123 | 65 | 28 | 15 | 9 | 1 | 4 | 1 |
| 35-39 | 965 | 5.4 | 112 | 192 | 225 | 193 | 98 | 65 | 47 | 18 | 14 | 10 | 6 | 5 | |
| 40-44 | 129 | .7 | 8 | 16 | 16 | 20 | 24 | 17 | 11 | 5 | 5 | 3 | 2 | 2 | |
| 45-49 | 4 | | | 1 | 1 | | | 1 | | | 1 | | | | |
| OVER 49 | 1 | | | 1 | | | | | | | | | | | |
| UNKNOWN | | | | | | | | | | | | | | | |

TABLE 12

LIVE BIRTHS BY AGE OF MOTHER AND NUMBER OF CHILDREN BORN ALIVE
STATE OF HAWAII. 1981

| AGE OF MOTHER | TOTAL | PERCENT | TOTAL NUMBER OF CHILDREN BORN ALIVE | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | -1- | -2- | -3- | -4- | -5- | -6- | -7- | -8- | -9- | -10- | -11- | > 11 | UNK |
| ALL AGES | 18.174 | 100.0 | 7.843 | 5.680 | 2.803 | 1.126 | 384 | 181 | 88 | 24 | 21 | 8 | 6 | 4 | 6 |
| PERCENT | 100.0 | | 43.2 | 31.3 | 15.4 | 6.2 | 2.1 | 1.0 | .5 | .1 | .1 | | | | |
| UNDER 15 | 18 | .1 | 18 | | | | | | | | | | | | |
| 15-17 | 555 | 3.1 | 505 | 46 | 4 | | | | | | | | | | |
| 18-19 | 1.490 | 8.2 | 1.135 | 291 | 56 | 7 | 1 | | | | | | | | |
| 20-24 | 5.808 | 32.0 | 2.923 | 1.963 | 684 | 192 | 39 | 6 | | | | | | | 1 |
| 25-29 | 5.686 | 31.3 | 2.185 | 1.909 | 985 | 405 | 115 | 55 | 23 | 3 | [illegible] | 1 | | | 4 |
| 30-34 | 3.498 | 19.2 | 901 | 1.194 | 791 | 361 | 148 | 60 | 23 | 10 | 6 | 2 | | 1 | 1 |
| 35-39 | 985 | 5.4 | 162 | 255 | 264 | 136 | 62 | 50 | 28 | 9 | 9 | 5 | 4 | 1 | |
| 40-44 | 129 | .7 | 14 | 20 | 18 | 25 | 18 | 10 | 14 | 1 | 5 | | 2 | 2 | |
| 45-49 | 4 | | | 1 | 1 | | 1 | | | 1 | | | | | |
| OVER 49 | 1 | | | 1 | | | | | | | | | | | |
| UNKNOWN | | | | | | | | | | | | | | | |

TABLE 13

SINGLE LIVE BIRTHS BY WEIGHT AT BIRTH AND RACE OF CHILD
STATE OF HAWAII, 1981

| WEIGHT AT BIRTH IN GRAMS | | ALL RACES | | RACE OF CHILD | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NUMBER | PERCENT | CAU-CASIAN | HAWN | PART HAWN | CHI-NESE | FILI-PINO | JAPA-NESE | PUERTO RICAN | KOREAN | SAMOAN | NEGRO | PORTU-GUESE | VIET-NAMESE | OTHER | UNKNOWN |
| TOTAL | | 17.858 | 100.0 | 3.720 | 47 | 5.578 | 707 | 2.809 | 2.494 | 164 | 339 | 504 | 636 | 192 | 93 | 571 | 4 |
| LOW BIRTH WEIGHT a/ | NUMBER | 1.095 | 6.1 | 184 | 6 | 347 | 31 | 231 | 147 | 13 | 12 | 18 | 51 | 15 | 5 | 34 | 1 |
| | PERCENT b/ | | | 1.0 | | 1.9 | .2 | 1.3 | .8 | .1 | .1 | .1 | .3 | .1 | | .2 | |
| UNDER 501 | | 13 | .1 | 4 | | 6 | | 1 | | | | | | 1 | | 1 | |
| 501 THRU 1000 | | 57 | .3 | 13 | | 17 | 2 | 6 | 9 | | 1 | 1 | 5 | | | 2 | 1 |
| 1001 THRU 1500 | | 87 | .5 | 13 | | 37 | 5 | 16 | 8 | | 4 | | 2 | | | 2 | |
| 1501 THRU 2000 | | 171 | 1.0 | 31 | | 48 | 3 | 37 | 19 | 1 | 3 | 5 | 9 | 4 | 2 | 9 | |
| 2001 THRU 2500 | | 767 | 4.3 | 123 | 6 | 239 | 21 | 171 | 111 | 12 | 4 | 12 | 35 | 10 | 3 | 20 | |
| 2501 THRU 3000 | | 3.683 | 20.6 | 474 | 8 | 1.160 | 174 | 794 | 613 | 32 | 66 | 47 | 143 | 43 | 26 | 102 | 1 |
| 3001 THRU 3500 | | 7.152 | 40.0 | 1.400 | 13 | 2.181 | 307 | 1.170 | 1.118 | 68 | 145 | 162 | 253 | 76 | 39 | 219 | 1 |
| 3501 THRU 4000 | | 4.519 | 25.3 | 1.178 | 14 | 1.463 | 167 | 502 | 523 | 39 | 95 | 185 | 138 | 49 | 18 | 147 | 1 |
| 4001 THRU 4500 | | 1.188 | 6.7 | 404 | 6 | 362 | 26 | 101 | 83 | 10 | 19 | 69 | 44 | 7 | 5 | 52 | |
| 4501 THRU 5000 | | 175 | 1.0 | 69 | | 51 | 1 | 9 | 7 | 2 | 2 | 17 | 4 | 2 | | 11 | |
| OVER 5000 | | 29 | .2 | 8 | | 11 | | | 1 | | | 4 | 2 | | | 3 | |
| UNKNOWN | | 17 | .1 | 3 | | 3 | 1 | 2 | 2 | | | 2 | 1 | | | 3 | |

MEDIAN WEIGHT. LB.OZ. 7- 4 GRAMS 3283

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a/ INFANTS OF 2500 GRAMS (5 LB 8 OZ) OR LESS ARE CONSIDERED LOW BIRTH WEIGHT
b/ PERCENT OF SINGLE LIVE BIRTHS OF KNOWN WEIGHT

## TABLE 14

### SINGLE LIVE BIRTHS BY WEIGHT AT BIRTH AND RACE OF MOTHER
### STATE OF HAWAII, 1981

| WEIGHT AT BIRTH IN GRAMS | | ALL RACES | | RACE OF MOTHER | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NUMBER | PERCENT | CAU-CASIAN | HAWN | PART HAWN | CHI-NESE | FILI-PINO | JAPA-NESE | PUERTO RICAN | KOREAN | SAMOAN | NEGRO | PORTU-GUESE | VIET-NAMESE | OTHER | UNKNOWN |
| TOTAL | | 17,858 | 100.0 | 5,020 | 132 | 3,934 | 685 | 3,056 | 2,626 | 146 | 405 | 484 | 464 | 229 | 108 | 564 | 5 |
| LOW BIRTH WEIGHT [a] | NUMBER | 1,095 | 6.1 | 238 | 11 | 259 | 26 | 261 | 153 | 17 | 18 | 16 | 41 | 16 | 5 | 33 | 1 |
| | PERCENT [b] | | | 1.3 | .1 | 1.5 | .1 | 1.5 | .9 | .1 | .1 | .1 | .2 | .1 | | .2 | |
| UNDER 501 | | 13 | .1 | 5 | | 6 | | 1 | | | | | | | | 1 | |
| 501 THRU 1000 | | 57 | .3 | 16 | | 15 | 1 | 9 | 4 | | 4 | 1 | 4 | | | 2 | 1 |
| 1001 THRU 1500 | | 87 | .5 | 19 | 1 | 24 | 4 | 19 | 11 | | 3 | | 2 | 2 | | 2 | |
| 1501 THRU 2000 | | 171 | 1.0 | 39 | | 39 | 2 | 41 | 21 | 2 | 2 | 3 | 8 | 4 | 2 | 8 | |
| 2001 THRU 2500 | | 767 | 4.3 | 159 | 10 | 175 | 19 | 191 | 117 | 15 | 9 | 12 | 27 | 10 | 3 | 20 | |
| 2501 THRU 3000 | | 3,683 | 20.6 | 681 | 25 | 836 | 165 | 878 | 672 | 34 | 60 | 41 | 110 | 55 | 28 | 97 | 1 |
| 3001 THRU 3500 | | 7,152 | 40.0 | 1,918 | 40 | 1,537 | 316 | 1,241 | 1,172 | 54 | 178 | 160 | 181 | 94 | 45 | 215 | 1 |
| 3501 THRU 4000 | | 4,519 | 25.3 | 1,555 | 43 | 1,024 | 152 | 558 | 538 | 26 | 123 | 174 | 101 | 53 | 25 | 145 | 2 |
| 4001 THRU 4500 | | 1,186 | 6.7 | 530 | 11 | 236 | 22 | 104 | 78 | 14 | 24 | 67 | 29 | 9 | 5 | 59 | |
| 4501 THRU 5000 | | 175 | 1.0 | 82 | 2 | 34 | 2 | 11 | 9 | 1 | 2 | 19 | | 2 | | 11 | |
| OVER 5000 | | 29 | .2 | 10 | | 7 | 1 | 1 | 1 | | | 6 | 1 | | | 2 | |
| UNKNOWN | | 17 | .1 | 6 | | 1 | 1 | 2 | 3 | | | 1 | 1 | | | 2 | |

MEDIAN WEIGHT, LB.OZ. 7- 4 GRAMS 3283

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[a] INFANTS OF 2500 GRAMS (5 LB 8 OZ) OR LESS ARE CONSIDERED LOW BIRTH WEIGHT
[b] PERCENT OF SINGLE LIVE BIRTHS OF KNOWN WEIGHT

## TABLE 15

### SINGLE MALE LIVE BIRTHS BY WEIGHT AND GESTATION PERIOD
### STATE OF HAWAII, 1981

| WEIGHT AT BIRTH IN GRAMS | | TOTAL | PERCENT | GESTATION PERIOD IN WEEKS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | UNDER 20 | 20-27 | 28-35 | 36-39 | 40 | OVER 40 | UN-KNOWN |
| TOTAL | | 9,181 | 100.0 | 4 | 44 | 510 | 4,069 | 1,786 | 2,571 | 197 |
| LOW BIRTH WEIGHT [a] | NUMBER | 521 | 5.7 | 2 | 38 | 190 | 182 | 40 | 53 | 16 |
| | PERCENT [b] | | | | .4 | 2.1 | 2.0 | .4 | .6 | .2 |
| UNDER 501 | | 4 | | | 3 | 1 | | | | |
| 501 THRU 1000 | | 32 | .3 | 1 | 23 | 7 | | | | 1 |
| 1001 THRU 1500 | | 50 | .5 | | 10 | 35 | 2 | | 2 | 1 |
| 1501 THRU 2000 | | 81 | .9 | | 2 | 47 | 20 | 3 | 4 | 5 |
| 2001 THRU 2500 | | 354 | 3.9 | 1 | | 100 | 160 | 37 | 47 | 9 |
| 2501 THRU 3000 | | 1,651 | 18.0 | 1 | 2 | 129 | 957 | 223 | 304 | 35 |
| 3001 THRU 3500 | | 3,550 | 38.7 | 1 | 1 | 114 | 1,749 | 723 | 901 | 61 |
| 3501 THRU 4000 | | 2,564 | 27.9 | | 2 | 60 | 932 | 605 | 903 | 62 |
| 4001 THRU 4500 | | 754 | 8.2 | | 1 | 11 | 212 | 168 | 342 | 20 |
| 4501 THRU 5000 | | 116 | 1.3 | | | 4 | 29 | 22 | 59 | 2 |
| OVER 5000 | | 16 | .2 | | | | 4 | 4 | 7 | 1 |
| UNKNOWN | | 9 | .1 | | | 2 | 4 | 1 | 2 | |

MEDIAN WEIGHT, LB.OZ. 7- 6 GRAMS 3334

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[a] INFANTS OF 2500 GRAMS (5 LB 8 OZ) OR LESS ARE CONSIDERED LOW BIRTH WEIGHT
[b] PERCENT OF SINGLE LIVE BIRTHS OF KNOWN WEIGHT

## TABLE 16

### SINGLE FEMALE LIVE BIRTHS BY WEIGHT AND GESTATION PERIOD STATE OF HAWAII, 1981

| WEIGHT AT BIRTH IN GRAMS | | TOTAL | PERCENT | GESTATION PERIOD IN WEEKS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | UNDER 20 | 20-27 | 28-35 | 36-39 | 40 | OVER 40 | UN-KNOWN |
| TOTAL | | 8.676 | 100.0 | 10 | 38 | 408 | 3.615 | 1,818 | 2,637 | 150 |
| LOW BIRTH WEIGHT a/ | NUMBER | 574 | 6.6 | 8 | 30 | 168 | 252 | 40 | 60 | 16 |
| | PERCENT b/ | | | .1 | .3 | 1.9 | 2.9 | .5 | .7 | .2 |
| UNDER 501 | | 9 | .1 | 4 | 4 | 1 | | | | |
| 501 THRU 1000 | | 25 | .3 | | 16 | 6 | | | | 3 |
| 1001 THRU 1500 | | 37 | .4 | | 4 | 26 | 6 | 1 | | |
| 1501 THRU 2000 | | 90 | 1.0 | 1 | 3 | 49 | 28 | 1 | 7 | 1 |
| 2001 THRU 2500 | | 413 | 4.8 | 3 | 3 | 86 | 218 | 38 | 53 | 12 |
| 2501 THRU 3000 | | 2,032 | 23.4 | 1 | 2 | 101 | 1,115 | 344 | 427 | 42 |
| 3001 THRU 3500 | | 3,601 | 41.5 | 1 | 5 | 97 | 1,523 | 835 | 1,091 | 49 |
| 3501 THRU 4000 | | 1,955 | 22.5 | | | 31 | 605 | 492 | 790 | 37 |
| 4001 THRU 4500 | | 434 | 5.0 | | | 4 | 104 | 93 | 229 | 4 |
| 4501 THRU 5000 | | 59 | .7 | | | 3 | 10 | 13 | 31 | 2 |
| OVER 5000 | | 13 | .1 | | | | 6 | 1 | 6 | |
| UNKNOWN | | 8 | .1 | | 1 | 4 | | | 3 | |

MEDIAN WEIGHT, LB.OZ. 7- 2 GRAMS 3228

a/ INFANTS OF 2500 GRAMS (5 LB 8 OZ) OR LESS ARE CONSIDERED LOW BIRTH WEIGHT
b/ PERCENT OF SINGLE LIVE BIRTHS OF KNOWN WEIGHT

## TABLE 17

### LIVE BIRTHS BY RACE, SEX, PLURALITY OF BIRTH, AND LOW BIRTH WEIGHT STATE OF HAWAII, 1981

| RACE OF CHILD | SINGLE AND PLURAL BIRTHS | | | | SINGLE MALE BIRTHS | | | SINGLE FEMALE BIRTHS | | | PLURAL MALE BIRTHS | | | PLURAL FEMALE BIRTHS | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | TOTAL NO. OF BIRTHS | MALE | FEMALE | RATIO a/ | TOTAL | LOW BIRTHWEIGHT b/ NO. | PERCENT c/ | TOTAL | LOW BIRTHWEIGHT b/ NO. | PERCENT c/ | TOTAL | LOW BIRTHWEIGHT b/ NO. | PERCENT c/ | TOTAL | LOW BIRTHWEIGHT b/ NO. | PERCENT c/ |
| ALL RACES | 18.174 | 9.344 | 8.830 | 105.8 | 9.181 | 522 | 5.7 | 8,677 | 576 | 6.6 | 163 | 76 | 46.6 | 153 | 78 | 51.0 |
| CAUCASIAN | 3.775 | 1.981 | 1.794 | 110.4 | 1.950 | 75 | 3.8 | 1.770 | 110 | 6.2 | 31 | 14 | 45.2 | 24 | 11 | 45.8 |
| HAWAIIAN | 47 | 24 | 23 | 104.3 | 24 | 1 | 4.2 | 23 | 5 | 21.7 | | | | | | |
| PART HAWN | 5.689 | 2.954 | 2.735 | 108.0 | 2.898 | 176 | 6.1 | 2,680 | 171 | 6.4 | 56 | 26 | 46.4 | 55 | 32 | 58.2 |
| CHINESE | 725 | 367 | 358 | 102.5 | 353 | 15 | 4.2 | 354 | 16 | 4.5 | 14 | 6 | 42.9 | 4 | 1 | 25.0 |
| FILIPINO | 2.857 | 1.448 | 1.409 | 102.7 | 1.427 | 112 | 7.8 | 1,382 | 119 | 8.6 | 21 | 10 | 47.6 | 27 | 14 | 51.9 |
| JAPANESE | 2.526 | 1.289 | 1.237 | 104.2 | 1.266 | 71 | 5.6 | 1,228 | 76 | 6.2 | 23 | 8 | 34.8 | 9 | 5 | 55.6 |
| PUERTO RCN | 168 | 82 | 86 | 95.3 | 81 | 4 | 4.9 | 83 | 9 | 10.8 | 1 | 1 | 100.0 | 3 | | |
| KOREAN | 343 | 184 | 159 | 115.7 | 184 | 7 | 3.8 | 155 | 5 | 3.2 | | | | 4 | 2 | 50.0 |
| SAMOAN | 512 | 250 | 262 | 95.4 | 248 | 5 | 2.0 | 256 | 14 | 5.5 | 2 | 2 | 100.0 | 6 | 2 | 33.3 |
| NEGRO | 652 | 334 | 318 | 105.0 | 329 | 20 | 6.1 | 307 | 31 | 10.1 | 5 | 3 | 60.0 | 11 | 6 | 54.5 |
| PORTUGESE | 194 | 95 | 99 | 95.9 | 94 | 9 | 9.6 | 98 | 6 | 6.1 | 1 | 1 | 100.0 | 1 | 1 | 100.0 |
| VIETNAMESE | 95 | 44 | 51 | 86.2 | 43 | 3 | 7.0 | 50 | 2 | 4.0 | 1 | | | 1 | | |
| OTHER | 587 | 288 | 299 | 96.3 | 280 | 23 | 8.2 | 291 | 12 | 4.1 | 8 | 5 | 62.5 | 8 | 4 | 50.0 |
| UNKNOWN | 4 | 4 | | | 4 | 1 | 25.0 | | | | | | | | | |

a/ NUMBER OF MALES PER 100 FEMALES
b/ INFANTS OF 2500 GRAMS (5 LB 8 OZ) OR LESS ARE CONSIDERED LOW BIRTH WEIGHT
c/ PERCENT OF BIRTHS OF KNOWN WEIGHT ONLY

## TABLE 18

### LIVE BIRTHS BY RACE AND AGE OF MOTHER
### STATE OF HAWAII, 1981

| RACE OF MOTHER | | ALL AGES | | AGE OF MOTHER IN YEARS | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NUMBER | PERCENT | < 15 | 15-17 | 18-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | 45-49 | OVER 49 | UNKNOWN |
| ALL RACES | NUMBER | 18.174 | 100.0 | 18 | 555 | 1,490 | 5,808 | 5,686 | 3,498 | 985 | 129 | 4 | 1 | |
| | PERCENT | 100.0 | | .1 | 3.1 | 8.2 | 32.0 | 31.3 | 19.2 | 5.4 | .7 | | | |
| CAUCASIAN | | 5.103 | 28.1 | 2 | 91 | 332 | 1,770 | 1,620 | 1,008 | 253 | 26 | | 1 | |
| HAWAIIAN | | 137 | .8 | | 7 | 11 | 51 | 35 | 23 | 9 | 1 | | | |
| PART HAWN | | 4.016 | 22.1 | 13 | 226 | 574 | 1,572 | 1,003 | 473 | 138 | 17 | | | |
| CHINESE | | 700 | 3.9 | | 7 | 18 | 113 | 243 | 249 | 64 | 5 | 1 | | |
| FILIPINO | | 3.105 | 17.1 | 2 | 113 | 256 | 932 | 999 | 530 | 222 | 49 | 2 | | |
| JAPANESE | | 2.654 | 14.6 | 1 | 38 | 108 | 453 | 1,027 | 835 | 182 | 9 | 1 | | |
| PUERTO RCN | | 148 | .8 | | 9 | 10 | 66 | 44 | 14 | 5 | | | | |
| KOREAN | | 411 | 2.3 | | 6 | 8 | 88 | 169 | 109 | 26 | 5 | | | |
| SAMOAN | | 492 | 2.7 | | 19 | 45 | 186 | 140 | 68 | 27 | 7 | | | |
| NEGRO | | 478 | 2.6 | | 14 | 54 | 232 | 130 | 37 | 10 | 1 | | | |
| PORTUGUESE | | 233 | 1.3 | | 9 | 23 | 92 | 68 | 31 | 6 | 4 | | | |
| VIETNAMESE | | 110 | .6 | | 5 | 4 | 31 | 33 | 27 | 8 | 2 | | | |
| OTHER | | 582 | 3.2 | | 11 | 45 | 222 | 174 | 94 | 34 | 2 | | | |
| UNKNOWN | | 5 | | | | 2 | | 1 | | 1 | 1 | | | |

## TABLE 19

### LIVE BIRTHS BY AGE OF FATHER AND OF MOTHER
### STATE OF HAWAII, 1981

| AGE OF FATHER | | ALL AGES | | AGE OF MOTHER IN YEARS | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NUMBER | PERCENT | < 15 | 15-17 | 18-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | 45-49 | OVER 49 | UNKNOWN |
| ALL AGES | NUMBER | 18.174 | 100.0 | 18 | 555 | 1.490 | 5,808 | 5,686 | 3,498 | 985 | 129 | 4 | 1 | |
| | PERCENT | 100.0 | | .1 | 3.1 | 8.2 | 32.0 | 31.3 | 19.2 | 5.4 | .7 | | | |
| < 15 | | | | | | | | | | | | | | |
| 15-17 | | 95 | .5 | | 57 | 34 | 4 | | | | | | | |
| 18-19 | | 520 | 2.9 | 2 | 126 | 270 | 112 | 8 | 2 | | | | | |
| 20-24 | | 3.857 | 21.2 | 1 | 124 | 668 | 2,548 | 435 | 74 | 5 | 2 | | | |
| 25-29 | | 4.933 | 27.1 | 1 | 19 | 126 | 1.732 | 2,588 | 406 | 57 | 4 | | | |
| 30-34 | | 4.135 | 22.8 | | 7 | 24 | 522 | 1.711 | 1.710 | 154 | 6 | 1 | | |
| 35-39 | | 1.833 | 10.1 | | 2 | 8 | 135 | 415 | 838 | 411 | 23 | | 1 | |
| 40-44 | | 591 | 3.3 | | | 3 | 37 | 114 | 200 | 192 | 44 | 1 | | |
| 45-49 | | 207 | 1.1 | | | 1 | 14 | 35 | 73 | 59 | 25 | | | |
| 50-54 | | 108 | .6 | | | 1 | 12 | 25 | 34 | 28 | 8 | | | |
| 55-59 | | 51 | .3 | | | 1 | 5 | 9 | 20 | 9 | 7 | | | |
| 60-64 | | 27 | .1 | | | | 2 | 6 | 8 | 9 | 1 | 1 | | |
| OVER 64 | | 43 | .2 | | | | 2 | 7 | 16 | 16 | 1 | 1 | | |
| UNKNOWN | | 1.774 | 9.8 | 14 | 220 | 354 | 683 | 333 | 117 | 45 | 8 | | | |

MEDIAN AGE OF KNOWN FATHERS = 29
MEDIAN AGE OF ALL MOTHERS = 25

## TABLE 20

### ILLEGITIMATE LIVE BIRTHS BY PLACE OF OCCURRENCE REALLOCATED TO PLACE OF RESIDENCE AND RACE OF MOTHER STATE OF HAWAII, 1981

| GEOGRAPHIC AREA | PLACE OF OCCURRENCE | BIRTH BY PLACE OF RESIDENCE | | RACE OF MOTHER | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NO. | RATE* | CAUCASIAN | HAWN | PART HAWN | CHINESE | FILIPINO | JAPANESE | PUERT RICAN | KOREAN | SAMOAN | NEGRO | PORTUGUESE | VIET MESE | OTHER | UNKNOWN |
| TOTAL RECORDED | 3315 | 3315 | 181.8 | 662 | 43 | 1419 | 41 | 527 | 216 | 33 | 30 | 128 | 59 | 53 | 13 | 90 | 1 |
| STATE OF HAWAII | 3315 | 3303 | 181.7 | 657 | 43 | 1417 | 41 | 527 | 214 | 33 | 30 | 128 | 57 | 53 | 13 | 89 | 1 |
| COUNTY OF HAWAII | 476 | 483 | 244.2 | 129 | 6 | 202 | 6 | 71 | 24 | 10 | 1 | 1 | 3 | 14 | | 15 | 1 |
| CITY OF HILO | 312 | 187 | 270.6 | 26 | 1 | 104 | 2 | 21 | 14 | 5 | | 1 | 1 | 7 | | 5 | |
| BALANCE OF COUNTY | 164 | 296 | 230.0 | 103 | 5 | 98 | 4 | 50 | 10 | 5 | 1 | | 2 | 7 | | 10 | 1 |
| COUNTY OF HONOLULU | 2388 | 2336 | 167.6 | 399 | 25 | 1010 | 31 | 378 | 160 | 21 | 29 | 127 | 52 | 26 | 13 | 67 | |
| CITY OF HONOLULU | 2054 | 869 | 157.9 | 168 | 2 | 341 | 14 | 112 | 84 | 7 | 21 | 61 | 15 | 7 | 13 | 24 | |
| BALANCE OF COUNTY | 334 | 1469 | 174.0 | 231 | 23 | 669 | 17 | 266 | 76 | 14 | 8 | 66 | 37 | 19 | | 43 | |
| COUNTY OF KALAWAO | | | | | | | | | | | | | | | | | |
| COUNTY OF KAUAI | 172 | 173 | 227.6 | 43 | 7 | 62 | 2 | 38 | 13 | | | | | 6 | | 2 | |
| ISLAND OF KAUAI | 172 | 173 | 227.9 | 43 | 7 | 62 | 2 | 38 | 13 | | | | | 6 | | 2 | |
| ISLAND OF NIIHAU | | | | | | | | | | | | | | | | | |
| COUNTY OF MAUI | 279 | 309 | 207.5 | 86 | 5 | 143 | 2 | 40 | 17 | 2 | | | 2 | 7 | | 5 | |
| ISLAND OF LANAI | | 2 | 105.3 | | | | | 2 | | | | | | | | | |
| ISLAND OF MAUI | 256 | 265 | 201.1 | 84 | 1 | 111 | 2 | 34 | 17 | 2 | | | 2 | 7 | | 5 | |
| ISLAND OF MOLOKAI (EXCL. KALAWAO) | 23 | 42 | 276.3 | 2 | 4 | 32 | | 4 | | | | | | | | | |
| NONRESIDENT | | 11 | 211.5 | 5 | | 1 | | | 2 | | | | 2 | | | 1 | |
| UNKNOWN RESIDENCE | | 1 | 250.0 | | | 1 | | | | | | | | | | | |

*NUMBER OF BIRTHS PER 1.000 RESIDENT LIVE BIRTHS

## TABLE 21

### ILLEGITIMATE LIVE BIRTHS BY WEIGHT AT BIRTH AND RACE OF CHILD STATE OF HAWAII, 1981

| WEIGHT AT BIRTH IN GRAMS | | ALL RACES | | RACE OF CHILD | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NUMBER | PERCENT | CAUCASIAN | HAWN | PART HAWN | CHINESE | FILIPINO | JAPANESE | PUERTO RICAN | KOREAN | SAMOAN | NEGRO | PORTUGUESE | VIETNAMESE | OTHER | UNKNOWN |
| TOTAL | | 3.303 | 100.0 | 486 | 23 | 1.710 | 38 | 433 | 170 | 37 | 24 | 140 | 86 | 59 | 13 | 83 | 1 |
| LOW BIRTH WEIGHT a/ | NUMBER | 317 | 9.6 | 44 | 2 | 153 | 5 | 50 | 13 | 5 | 4 | 9 | 16 | 7 | 2 | 7 | |
| | PERCENT b/ | | | 1.3 | .1 | 4.6 | .2 | 1.5 | .4 | .2 | .1 | .3 | .5 | .2 | .1 | .2 | |
| UNDER 501 | | 4 | .1 | 2 | | 2 | | | | | | | | | | | |
| 501 THRU 1000 | | 22 | .7 | 5 | | 11 | | 1 | | | | 1 | 2 | 2 | | | |
| 1001 THRU 1500 | | 23 | .7 | 4 | | 13 | 1 | 4 | 1 | | | | | | | | |
| 1501 THRU 2000 | | 63 | 1.9 | 5 | | 31 | 1 | 11 | 2 | 1 | 2 | 3 | 4 | 1 | 1 | 1 | |
| 2001 THRU 2500 | | 205 | 6.2 | 28 | 2 | 96 | 3 | 34 | 10 | 4 | 2 | 5 | 10 | 4 | 1 | 6 | |
| 2501 THRU 3000 | | 793 | 24.0 | 76 | 5 | 423 | 10 | 137 | 46 | 8 | 6 | 21 | 20 | 17 | 2 | 22 | |
| 3001 THRU 3500 | | 1.290 | 39.1 | 198 | 5 | 694 | 13 | 155 | 73 | 14 | 6 | 46 | 31 | 23 | 6 | 26 | |
| 3501 THRU 4000 | | 735 | 22.3 | 133 | 8 | 357 | 7 | 79 | 36 | 10 | 8 | 46 | 14 | 11 | 3 | 22 | 1 |
| 4001 THRU 4500 | | 143 | 4.3 | 30 | 3 | 71 | 3 | 11 | 2 | | | 14 | 3 | 1 | | 5 | |
| 4501 THRU 5000 | | 17 | .5 | 3 | | 9 | | 1 | | | | 2 | 2 | | | | |
| OVER 5000 | | 3 | .1 | 1 | | 1 | | | | | | 1 | | | | | |
| UNKNOWN | | 5 | .2 | 1 | | 2 | | | | | | 1 | | | | 1 | |

MEDIAN WEIGHT, LB.OZ. 7- GRAMS 3171

a/ INFANTS OF 2500 GRAMS (5 LB 8 OZ) OR LESS ARE CONSIDERED LOW BIRTH WEIGHT
b/ PERCENT OF SINGLE LIVE BIRTHS OF KNOWN WEIGHT

## TABLE 22

### ILLEGITIMATE LIVE BIRTHS BY RACE AND AGE OF MOTHER
### STATE OF HAWAII, 1981

| RACE OF MOTHER | | ALL AGES | | AGE OF MOTHER IN YEARS | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NUMBER | RATIO* | < 15 | 15-17 | 18-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | 45-49 | OVER 49 | UNKNOWN |
| ALL RACES | NUMBER | 3,303 | 181.7 | 17 | 426 | 703 | 1,255 | 564 | 235 | 86 | 16 | 1 | | |
| | RATIO* | | | 944.4 | 767.6 | 471.8 | 216.1 | 99.2 | 67.2 | 87.3 | 124.0 | 250.0 | | |
| CAUCASIAN | | 657 | 128.7 | 2 | 51 | 85 | 227 | 181 | 82 | 26 | 3 | | | |
| HAWAIIAN | | 43 | 313.9 | | 7 | 7 | 18 | 9 | 2 | | | | | |
| PART HAWN | | 1,417 | 352.8 | 12 | 195 | 361 | 561 | 197 | 59 | 26 | 6 | | | |
| CHINESE | | 41 | 58.6 | | 7 | 10 | 11 | 6 | 4 | 3 | | | | |
| FILIPINO | | 527 | 169.7 | 2 | 92 | 119 | 202 | 62 | 32 | 14 | 3 | 1 | | |
| JAPANESE | | 214 | 80.6 | 1 | 28 | 41 | 74 | 44 | 18 | 6 | 2 | | | |
| PUERTO RCN | | 33 | 223.0 | | 7 | 3 | 14 | 7 | 1 | 1 | | | | |
| KOREAN | | 30 | 73.0 | | 3 | 5 | 10 | 4 | 5 | 2 | 1 | | | |
| SAMOAN | | 128 | 260.2 | | 15 | 28 | 50 | 16 | 13 | 5 | 1 | | | |
| NEGRO | | 57 | 119.2 | | 7 | 18 | 17 | 12 | 3 | | | | | |
| PORTUGUESE | | 53 | 227.5 | | 7 | 9 | 26 | 6 | 4 | 1 | | | | |
| VIETNAMESE | | 13 | 118.2 | | 2 | 1 | 4 | 2 | 2 | 2 | | | | |
| OTHER | | 89 | 152.9 | | 5 | 16 | 41 | 17 | 10 | | | | | |
| UNKNOWN | | 1 | 200.0 | | | | | 1 | | | | | | |

* NUMBER OF ILLEGITIMATE BIRTHS PER 1000 LIVE BIRTHS IN SPECIFIED GROUP.

## TABLE 23

### TOTAL DEATHS BY PLACE OF OCCURRENCE REALLOCATED TO USUAL RESIDENCE BY RACE
### STATE OF HAWAII, 1981 a/

| GEOGRAPHIC AREA | TOTAL BY PLACE OF OCCURR | TOTAL BY PLACE OF RESIDENCE | | ALL RACES | | RACE | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NUMBER | RATE b/ | MALE | FE-MALE | CAUCA-SIAN | HAWN | PT. HAWN | CHI-NESE | FILI-PINO | JAPA-NESE | PUERTO RICAN | KO-REAN | SA-MOAN | NEGRO | PORTU-GUESE | VIETNA-MESE | OTHER RACES | UN-KNOWN |
| TOTAL RECORDED | 5269 | 5269 | | 3249 | 2020 | 1614 | 198 | 646 | 298 | 628 | 1381 | 51 | 109 | 78 | 36 | 159 | 2 | 60 | 7 |
| STATE OF HAWAII | 5258 | 4927 | 5.1 | 2999 | 1928 | 1378 | 198 | 643 | 295 | 618 | 1359 | 51 | 98 | 60 | 30 | 159 | 2 | 31 | 5 |
| CTY OF HAWAII | 588 | 612 | 6.4 | 410 | 202 | 140 | 34 | 83 | 9 | 84 | 196 | 8 | 1 | 1 | 1 | 54 | | 1 | |
| CITY OF HILO | 389 | 230 | 6.3 | 156 | 74 | 40 | 15 | 34 | 6 | 19 | 88 | 1 | | 1 | | 26 | | | |
| BALANCE OF CTY | 199 | 382 | 6.5 | 254 | 128 | 100 | 19 | 49 | 3 | 65 | 108 | 7 | 1 | | 1 | 28 | | 1 | |
| CTY OF HONOLULU | 4073 | 3654 | 4.7 | 2172 | 1482 | 1080 | 128 | 462 | 278 | 424 | 955 | 36 | 93 | 57 | 28 | 80 | 2 | 27 | 4 |
| CITY-HONOLULU | 3277 | 2151 | 5.8 | 1274 | 877 | 660 | 54 | 224 | 217 | 175 | 644 | 19 | 58 | 28 | 15 | 37 | 2 | 16 | 2 |
| BALANCE OF CTY | 796 | 1503 | 3.7 | 898 | 605 | 420 | 74 | 238 | 61 | 249 | 311 | 17 | 35 | 29 | 13 | 43 | | 11 | 2 |
| CTY OF KALAWAO | 3 | 3 | 18.8 | 1 | 2 | | 1 | | | 1 | | | | | | 1 | | | |
| CTY OF KAUAI | 217 | 233 | 5.9 | 150 | 83 | 53 | 7 | 29 | 3 | 54 | 78 | 4 | 2 | | | 1 | | 2 | |
| ISL OF KAUAI | 217 | 233 | 5.9 | 150 | 83 | 53 | 7 | 29 | 3 | 54 | 78 | 4 | 2 | | | 1 | | 2 | |
| ISL OF NIIHAU | | | | | | | | | | | | | | | | | | | |
| CTY OF MAUI | 377 | 425 | 5.9 | 266 | 159 | 105 | 28 | 69 | 5 | 55 | 130 | 3 | 2 | 2 | 1 | 23 | | 1 | 1 |
| ISL OF LANAI | 5 | 12 | 5.5 | 8 | 4 | | | | 1 | 7 | 4 | | | | | | | | |
| ISL OF MAUI | 344 | 380 | 5.9 | 235 | 145 | 103 | 16 | 59 | 4 | 43 | 123 | 3 | 1 | 2 | 1 | 23 | | 1 | 1 |
| ISL OF MOLOKAI (EXCL KALAWAO) | 28 | 33 | 5.5 | 23 | 10 | 2 | 12 | 10 | | 5 | 3 | | 1 | | | | | | |
| NONRESIDENT | 10 | 337 | | 245 | 92 | 234 | | 3 | 3 | 10 | 22 | | 11 | 18 | 8 | | | 28 | |
| UNKNOWN | 1 | 5 | | 5 | | 2 | | | | | | | | | | | | 1 | 2 |

a/EXCLUDES DEATHS OF HAWAII RESIDENTS OCCURRING AND RECORDED IN OTHER REGISTRATION AREAS
b/RATE OF DEATH PER 1,000 RESIDENT POPULATION

## TABLE 24

### RESIDENT DEATHS BY PLACE AND MONTH OF OCCURRENCE
### STATE OF HAWAII. 1981

| PLACE OF OCCURRENCE | | TOTAL | MONTH OF OCCURRENCE | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
| STATE OF HAWAII | NUMBER | 4927 | 440 | 401 | 415 | 402 | 393 | 406 | 427 | 420 | 409 | 399 | 400 | 415 |
| | PERCENT | 100.0 | 8.9 | 8.1 | 8.4 | 8.2 | 8.0 | 8.2 | 8.7 | 8.5 | 8.3 | 8.1 | 8.1 | 8.4 |
| CTY OF HAWAII | | 556 | 41 | 41 | 43 | 43 | 56 | 48 | 59 | 49 | 44 | 49 | 39 | 44 |
| CITY OF HILO | | 377 | 30 | 32 | 32 | 28 | 33 | 25 | 39 | 34 | 37 | 34 | 25 | 28 |
| BALANCE OF CTY | | 179 | 11 | 9 | 11 | 15 | 23 | 23 | 20 | 15 | 7 | 15 | 14 | 16 |
| CTY OF HONOLULU | | 3816 | 348 | 321 | 316 | 316 | 291 | 311 | 320 | 323 | 324 | 297 | 316 | 333 |
| CITY-HONOLULU | | 3045 | 285 | 266 | 252 | 240 | 230 | 246 | 271 | 263 | 267 | 229 | 246 | 250 |
| BALANCE OF CTY | | 771 | 63 | 55 | 64 | 76 | 61 | 65 | 49 | 60 | 57 | 68 | 70 | 83 |
| CTY OF KALAWAO | | 3 | | | | 1 | | 1 | | | | | 1 | |
| CTY OF KAUAI | | 203 | 17 | 10 | 20 | 14 | 20 | 16 | 19 | 17 | 11 | 24 | 18 | 17 |
| ISL OF KAUAI | | 203 | 17 | 10 | 20 | 14 | 20 | 16 | 19 | 17 | 11 | 24 | 18 | 17 |
| ISL OF NIIHAU | | | | | | | | | | | | | | |
| CTY OF MAUI | | 349 | 34 | 29 | 36 | 28 | 26 | 30 | 29 | 31 | 30 | 29 | 26 | 21 |
| ISL OF LANAI | | 5 | | | 1 | | | 1 | | 2 | | 1 | | |
| ISL OF MAUI | | 317 | 30 | 29 | 29 | 27 | 22 | 27 | 28 | 27 | 28 | 27 | 24 | 19 |
| ISL OF MOLOKAI | | 27 | 4 | | 6 | 1 | 4 | 2 | 1 | 2 | 2 | 1 | 2 | 2 |
| NON-RESIDENT | | | | | | | | | | | | | | |
| UNKNOWN | | | | | | | | | | | | | | |

## TABLE 25

### RESIDENT DEATHS BY PLACE OF OCCURRENCE. AGE. AND SEX
### STATE OF HAWAII. 1981

| PLACE OF OCCURRENCE | ALL AGES | | | | AGE AND SEX | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | TOTAL | MALE | FE-MALE | UNK | UNDER 1 | | 1 - 4 | | 5 - 14 | | 15 - 17 | | 18 - 24 | | 25 - 44 | | 45 - 64 | | 65 - 74 | | 75 & OVER | | UNK |
| | | | | | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | |
| STATE OF HAWAII | 4927 | 2999 | 1928 | | 97 | 81 | 25 | 10 | 17 | 12 | 13 | 11 | 106 | 31 | 233 | 120 | 785 | 398 | 706 | 350 | 1016 | 915 | 1 |
| CTY OF HAWAII | 556 | 377 | 179 | | 6 | 5 | 2 | | 2 | | | 1 | 11 | 3 | 30 | 7 | 81 | 24 | 89 | 31 | 156 | 108 | |
| CITY OF HILO | 377 | 251 | 126 | | 4 | 3 | 1 | | 2 | | | 1 | 10 | 3 | 16 | 3 | 48 | 12 | 58 | 19 | 112 | 85 | |
| BALANCE OF CTY | 179 | 126 | 53 | | 2 | 2 | 1 | | | | | | 1 | | 14 | 4 | 33 | 12 | 31 | 12 | 44 | 23 | |
| CTY OF HONOLULU | 3816 | 2275 | 1541 | | 84 | 75 | 20 | 9 | 13 | 10 | 8 | 10 | 87 | 26 | 175 | 101 | 638 | 333 | 539 | 285 | 710 | 692 | 1 |
| CITY-HONOLULU | 3045 | 1804 | 1241 | | 75 | 63 | 16 | 6 | 9 | 5 | 5 | 5 | 46 | 18 | 126 | 76 | 502 | 276 | 445 | 224 | 579 | 568 | 1 |
| BALANCE OF CTY | 771 | 471 | 300 | | 9 | 12 | 4 | 3 | 4 | 5 | 3 | 5 | 41 | 8 | 49 | 25 | 136 | 57 | 94 | 61 | 131 | 124 | |
| CTY OF KALAWAO | 3 | 1 | 2 | | | | | | | | | | | | | | | 1 | 1 | | | 1 | |
| CTY OF KAUAI | 203 | 131 | 72 | | 2 | | | 1 | | 1 | 2 | | 2 | | 10 | 6 | 21 | 13 | 35 | 11 | 59 | 40 | |
| ISL OF KAUAI | 203 | 131 | 72 | | 2 | | | 1 | | 1 | 2 | | 2 | | 10 | 6 | 21 | 13 | 35 | 11 | 59 | 40 | |
| ISL OF NIIHAU | | | | | | | | | | | | | | | | | | | | | | | |
| CTY OF MAUI | 349 | 215 | 134 | | 5 | 1 | 3 | | 2 | 1 | 3 | | 6 | 2 | 18 | 6 | 45 | 27 | 42 | 23 | 91 | 74 | |
| ISL OF LANAI | 5 | 3 | 2 | | | | | | | | 1 | | | | | | 1 | | | | 1 | 2 | |
| ISL OF MAUI | 317 | 192 | 125 | | 4 | 1 | 3 | | 2 | 1 | 2 | | 5 | | 17 | 5 | 35 | 26 | 39 | 23 | 85 | 69 | |
| ISL OF MOLOKAI | 27 | 20 | 7 | | 1 | | | | | | | | 1 | 2 | 1 | 1 | 9 | 1 | 3 | | 5 | 3 | |
| NON-RESIDENT | | | | | | | | | | | | | | | | | | | | | | | |
| UNKNOWN | | | | | | | | | | | | | | | | | | | | | | | |

## TABLE 26

### RESIDENT DEATHS BY AGE AND RACE
### STATE OF HAWAII, 1981

| AGE IN YEARS | ALL RACES<br>TOTAL | MALE | FEMALE | UNK | RACE<br>CAUCASIAN | HAWN | PT. HAWN | CHINESE | FILIPINO | JAPANESE | PUERTO RICAN | KOREAN | SAMOAN | NEGRO | PORTUGUESE | VIETNAMESE | OTHER RACES | UNK |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALL AGES | 4927 | 2999 | 1928 |  | 1378 | 198 | 643 | 295 | 618 | 1359 | 51 | 98 | 60 | 30 | 159 | 2 | 31 | 5 |
| UNDER 1 | 178 | 97 | 81 |  | 36 | 1 | 69 | 5 | 20 | 24 |  | 3 | 3 | 5 | 1 |  | 9 | 2 |
| 1 - 4 | 35 | 25 | 10 |  | 9 |  | 9 | 2 | 7 | 5 |  | 2 |  |  |  |  | 1 |  |
| 5 - 14 | 29 | 17 | 12 |  | 5 |  | 12 |  | 5 | 4 |  |  | 2 |  |  |  | 1 |  |
| 15 - 17 | 24 | 13 | 11 |  | 4 |  | 9 | 1 | 4 | 5 |  | 1 |  |  |  |  |  |  |
| 18 - 19 | 40 | 29 | 11 |  | 2 |  | 11 | 1 | 7 | 6 |  |  | 1 |  |  |  | 2 |  |
| 20 - 24 | 97 | 77 | 20 |  | 43 | 3 | 18 |  | 10 | 7 | 3 | 2 | 1 | 5 | 1 |  | 4 |  |
| 25 - 34 | 161 | 117 | 44 |  | 72 | 2 | 32 | 5 | 6 | 21 |  | 5 | 9 | 5 | 2 |  | 2 |  |
| 35 - 44 | 192 | 116 | 76 |  | 61 | 8 | 39 | 7 | 24 | 32 | 1 | 3 | 7 | 1 | 6 |  | 3 |  |
| 45 - 54 | 391 | 269 | 122 |  | 110 | 31 | 60 | 28 | 31 | 97 | 3 | 14 | 7 | 3 | 4 | 1 | 2 |  |
| 55 - 64 | 792 | 516 | 276 |  | 247 | 54 | 118 | 46 | 50 | 201 | 8 | 21 | 7 | 3 | 34 | 1 | 2 |  |
| 65 - 74 | 1056 | 706 | 350 |  | 306 | 51 | 125 | 64 | 158 | 267 | 15 | 14 | 9 | 4 | 39 |  | 2 | 2 |
| 75 & OVER | 1931 | 1016 | 915 |  | 473 | 48 | 141 | 136 | 296 | 690 | 21 | 33 | 14 | 4 | 72 |  | 2 | 1 |
| UNKNOWN | 1 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  |

## TABLE 27

### TOTAL RECORDED DEATHS, BY AGE, RACE AND SEX
### STATE OF HAWAII. 1981

| AGE | TOTAL | MAL | FEM | CAUCASIAN |  | HAWAIIAN |  | PART HAWN |  | CHINESE |  | FILIPINO |  | JAPANESE |  | PUERT RCN |  | KOREAN |  | SAMOAN |  | NEGRO |  | PORTGESE |  | VIETMESE |  | OTHER |  | UNK |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  |  |  | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F |
| < 1 | 191 | 107 | 84 | 18 | 20 |  | 1 | 41 | 28 | 4 | 2 | 14 | 10 | 14 | 10 |  |  | 1 | 2 | 3 | 2 | 3 | 4 |  | 1 |  |  | 8 | 3 | 1 | 1 |
| 1 | 14 | 10 | 4 | 1 |  |  |  | 3 | 1 |  |  | 2 | 1 | 1 | 1 |  |  | 1 | 1 |  |  |  |  |  |  |  |  | 2 |  |  |  |
| 2 | 10 | 9 | 1 | 5 |  |  |  | 1 |  | 1 |  |  |  | 1 | 1 |  |  |  |  | 1 |  |  |  |  |  |  |  |  |  |  |  |
| 3 | 13 | 8 | 5 | 2 | 1 |  |  | 3 |  | 1 |  | 1 | 2 |  | 1 |  |  | 1 |  |  |  |  |  |  |  |  |  |  | 1 |  |  |
| 4 | 6 | 6 |  | 3 |  |  |  | 1 |  |  |  | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  |  |  |
| 5-9 | 14 | 7 | 7 | 2 | 2 |  |  | 2 | 4 |  |  | 1 |  | 1 |  |  |  |  |  |  | 1 |  |  |  |  |  |  | 1 |  |  |  |
| 10-14 | 17 | 11 | 6 | 2 | 1 |  |  | 4 | 2 |  |  | 2 | 2 | 2 | 1 |  |  |  |  | 1 |  |  |  |  |  |  |  |  |  |  |  |
| 15-19 | 73 | 49 | 24 | 16 | 6 |  |  | 10 | 10 | 2 |  | 8 | 3 | 8 | 3 |  |  | 1 |  | 1 |  | 2 |  |  |  |  |  | 1 | 2 |  |  |
| 20-24 | 110 | 88 | 22 | 38 | 13 | 3 |  | 15 | 3 |  |  | 7 | 3 | 7 | 1 | 2 | 1 | 5 |  | 1 | 1 | 5 |  | 1 |  |  |  | 4 |  |  |  |
| 25-29 | 81 | 60 | 21 | 27 | 8 | 1 |  | 7 | 8 | 3 |  | 3 | 1 | 7 | 1 |  |  | 3 |  | 3 | 2 | 2 | 1 | 2 |  |  |  | 2 |  |  |  |
| 30-34 | 108 | 83 | 25 | 41 | 11 |  | 1 | 10 | 7 | 1 | 1 | 3 | 1 | 14 | 3 |  |  | 5 | 1 | 4 |  | 3 |  |  |  |  |  | 2 |  |  |  |
| 35-39 | 105 | 61 | 44 | 34 | 13 | 1 | 2 | 13 | 9 | 1 | 4 | 3 | 6 | 4 | 4 |  |  | 1 | 2 | 2 | 3 |  |  |  |  |  |  | 2 | 1 |  |  |
| 40-44 | 113 | 76 | 37 | 20 | 11 | 3 | 2 | 11 | 6 | 2 |  | 9 | 5 | 17 | 8 | 1 |  | 3 |  | 2 |  | 1 |  | 4 | 2 |  |  | 3 | 2 |  |  |
| 45-49 | 152 | 107 | 45 | 40 | 8 | 10 | 5 | 10 | 8 | 6 | 2 | 7 | 8 | 20 | 9 | 2 |  | 3 | 3 | 4 | 1 |  |  |  |  |  |  | 5 | 1 |  |  |
| 50-54 | 274 | 193 | 81 | 61 | 23 | 13 | 3 | 30 | 12 | 12 | 8 | 10 | 7 | 52 | 21 | 1 |  | 4 | 4 | 2 | 1 | 3 | 1 | 3 | 1 | 1 |  | 1 |  |  |  |
| 55-59 | 384 | 243 | 141 | 73 | 47 | 14 | 11 | 36 | 22 | 11 | 3 | 23 | 5 | 59 | 39 | 2 | 3 | 5 | 5 | 4 | 2 | 3 |  | 8 | 3 | 1 |  | 4 | 1 |  |  |
| 60-64 | 481 | 325 | 156 | 127 | 49 | 21 | 8 | 33 | 30 | 23 | 10 | 20 | 4 | 63 | 44 | 2 | 1 | 8 | 3 | 5 | 1 | 1 |  | 17 | 6 |  |  | 5 |  |  |  |
| 65-69 | 568 | 370 | 198 | 121 | 66 | 10 | 11 | 39 | 35 | 23 | 7 | 48 | 11 | 96 | 48 | 4 | 4 | 7 | 3 | 4 | 5 | 2 | 3 | 14 | 5 |  |  | 1 |  | 1 |  |
| 70-74 | 574 | 396 | 178 | 123 | 65 | 18 | 12 | 32 | 19 | 21 | 14 | 89 | 10 | 81 | 47 | 5 | 2 | 2 | 2 | 5 | 2 |  |  | 17 | 3 |  |  | 2 | 2 | 1 |  |
| 75-79 | 637 | 397 | 240 | 89 | 62 | 13 | 12 | 31 | 27 | 18 | 19 | 100 | 22 | 112 | 77 | 1 | 3 | 9 | 5 | 3 | 2 | 1 |  | 18 | 11 |  |  | 1 |  | 1 |  |
| 80-84 | 537 | 304 | 233 | 75 | 81 | 6 | 5 | 23 | 17 | 24 | 21 | 67 | 20 | 86 | 62 | 6 | 4 | 1 | 8 | 4 | 3 | 1 | 1 | 10 | 11 |  |  | 1 |  |  |  |
| 85-89 | 441 | 167 | 274 | 52 | 82 | 1 | 6 | 11 | 16 | 15 | 20 | 44 | 15 | 32 | 123 | 2 | 2 | 2 | 1 |  | 1 | 1 |  | 7 | 8 |  |  |  |  |  |  |
| 90-94 | 272 | 130 | 142 | 20 | 39 | 1 | 3 | 6 | 7 | 6 | 8 | 16 | 3 | 77 | 73 | 1 | 1 | 2 | 3 | 1 |  |  |  |  | 5 |  |  |  |  |  |  |
| > 94 | 90 | 38 | 52 | 5 | 10 |  | 1 |  | 3 | 2 | 3 | 7 | 3 | 21 | 29 | 1 |  | 1 | 1 | 1 |  |  |  |  | 2 |  |  |  |  |  |  |
| UNK | 4 | 4 |  | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  | 2 |  |
| TOTAL | 5269 | 3249 | 2020 | 996 | 618 | 115 | 83 | 372 | 274 | 176 | 122 | 485 | 143 | 775 | 606 | 30 | 21 | 65 | 44 | 51 | 27 | 28 | 10 | 101 | 58 | 2 |  | 47 | 13 | 6 | 1 |

NOTE: UNKNOWN SEX FALLS IN MALE CATEGORY

## TABLE 28

### TOTAL RESIDENT DEATHS RECORDED IN HAWAII BY AGE GROUPS FOR SELECTED YEARS
### STATE OF HAWAII: 1961, 1971, AND 1981

| AGE IN YEARS | 1981 | | 1971[a/] | | 1961[a/] | |
|---|---|---|---|---|---|---|
| | NUMBER | PERCENT | NUMBER | PERCENT | NUMBER | PERCENT |
| ALL AGES ... | 4,927 | 100.0 | 4,304 | 100.0 | 3,367 | 100.0 |
| Under 1 ....... | 178 | 3.6 | 254 | 5.9 | 381 | 11.3 |
| 1 - 4 ....... | 35 | 0.7 | 30 | 0.7 | 47 | 1.4 |
| 5 - 9 ....... | 13 | 0.3 | 29 | 0.7 | 29 | 0.9 |
| 10 - 14 ....... | 16 | 0.3 | 23 | 0.5 | 23 | 0.7 |
| 15 - 19 ....... | 64 | 1.3 | 71 | 1.6 | 35 | 1.0 |
| 20 - 24 ....... | 97 | 2.0 | 85 | 2.0 | 45 | 1.4 |
| 25 - 34 ....... | 161 | 3.3 | 130 | 3.0 | 92 | 2.7 |
| 35 - 44 ....... | 192 | 3.9 | 205 | 4.8 | 187 | 5.6 |
| 45 - 54 ....... | 391 | 7.9 | 503 | 11.7 | 381 | 11.3 |
| 55 - 64 ....... | 792 | 16.1 | 730 | 17.0 | 549 | 16.3 |
| 65 - 74 ....... | 1,056 | 21.4 | 940 | 21.9 | 677 | 20.1 |
| 75 - 84 ....... | 1,141 | 23.2 | 841 | 19.5 | 617 | 18.3 |
| 85 & over ..... | 790 | 16.0 | 462 | 10.7 | 304 | 9.0 |
| Unknown ....... | 1 | -- | 1 | -- | -- | -- |

MEDIAN AGE AT DEATH 1961: 63.5 years; 1971: 66.0 years; 1981: 70.0 years

a/ SOURCE: Vital Statistics of the United States

## TABLE 29

### RESIDENT DEATHS BY AGE, SEX, AND MARITAL STATUS
### STATE OF HAWAII, 1981

| AGE IN YEARS | NUMBER BY MARITAL STATUS | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MALE | | | | | | FEMALE | | | | | | UNKNOWN | | | | | |
| | TOTAL | SIN | MAR | WID | DIV | UNK | TOTAL | SIN | MAR | WID | DIV | UNK | TOTAL | SIN | MAR | WID | DIV | UNK |
| ALL AGES | 2999 | 618 | 1680 | 411 | 277 | 13 | 1928 | 245 | 595 | 939 | 145 | 4 | | | | | | |
| UNDER 15 | 139 | 138 | | | | 1 | 103 | 103 | | | | | | | | | | |
| 15 - 17 | 13 | 13 | | | | | 11 | 10 | 1 | | | | | | | | | |
| 18 - 19 | 29 | 29 | | | | | 11 | 10 | 1 | | | | | | | | | |
| 20 - 24 | 77 | 62 | 13 | | 2 | | 20 | 14 | 6 | | | | | | | | | |
| 25 - 34 | 117 | 58 | 35 | 1 | 23 | | 44 | 15 | 22 | | 6 | 1 | | | | | | |
| 35 - 44 | 116 | 29 | 57 | 2 | 28 | | 76 | 8 | 49 | 5 | 14 | | | | | | | |
| 45 - 54 | 269 | 49 | 177 | 2 | 41 | | 122 | 15 | 76 | 13 | 18 | | | | | | | |
| 55 - 64 | 516 | 58 | 371 | 26 | 57 | 4 | 276 | 20 | 155 | 65 | 35 | 1 | | | | | | |
| 65 - 74 | 706 | 75 | 497 | 68 | 60 | 6 | 350 | 17 | 151 | 140 | 40 | 2 | | | | | | |
| 75 - 84 | 668 | 61 | 398 | 160 | 48 | 1 | 453 | 15 | 106 | 311 | 21 | | | | | | | |
| 85 & OVER | 328 | 25 | 132 | 152 | 18 | 1 | 462 | 18 | 28 | 405 | 11 | | | | | | | |
| UNKNOWN | 1 | 1 | | | | | | | | | | | | | | | | |

TABLE 30

LEADING CAUSES OF DEATH FOR 1981 AND COMPARATIVE DATA FOR SELECTED YEARS

State of Hawaii, 1961, 1971, 1981

| | Rank | 1981 | | | 1971 | | | 1961 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | No.a/ | Rateb/ | Per-cent | No.c/ | Rateb/ | Per-cent | No.c/ | Rateb/ | Per-cent |
| All Causes .......................... | ... | 4,927 | 502.2 | 100.0 | 4,304 | 583.5 | 100.0 | 3,367 | 549.6 | 100.0 |
| Diseases of the Heart (390-398, 402, 404, 410-429)d/ | 1 | 1,611 | 164.2 | 32.7 | 1,478 | 200.4 | 34.3 | 1,088 | 177.6 | 32.3 |
| Malignant Neoplasms (140-208)e/ | 2 | 1,213 | 123.6 | 24.6 | 775 | 105.1 | 18.0 | 564 | 92.1 | 16.8 |
| Cerebrovascular Diseasesd/ (430-438) | 3 | 365 | 37.2 | 7.4 | 432 | 58.6 | 10.0 | 311 | 50.8 | 9.2 |
| All Accidents (E800-E949) | 4 | 287 | 29.3 | 5.8 | 279 | 37.8 | 6.5 | 199 | 32.5 | 5.9 |
| Influenza and Pneumonia (480-487)d/ | 5 | 156 | 15.9 | 3.2 | 172 | 23.3 | 4.0 | 160 | 26.1 | 4.8 |
| Diabetes Mellitus (250) | 6 | 127 | 12.9 | 2.6 | 125 | 16.9 | 2.9 | 100 | 16.3 | 3.0 |
| Suicide (E950-E959) | 7 | 87 | 8.9 | 1.8 | 97 | 13.2 | 2.3 | 53 | 8.7 | 1.6 |
| Perinatal Conditions (760-779) | 7 | 87 | 8.9 | 1.8 | 133 | 18.0 | 3.1 | 254 | 41.5 | 7.5 |
| Congenital Anomalies (740-759) | 9 | 80 | 8.2 | 1.6 | 81 | 11.0 | 1.9 | 78 | 12.7 | 2.3 |
| Cirrhosis of Liver (571) | 10 | 70 | 7.1 | 1.4 | 90 | 12.2 | 2.1 | 44 | 7.2 | 1.3 |
| Other Circulatory Diseases (441-459) | 11 | 52 | 5.3 | 1.1 | 48 | 6.5 | 1.1 | 91 | 14.9 | 2.7 |
| Homicide and Legal Interventione/ (E960-E978) | 12 | 47 | 4.8 | 1.0 | 34 | 4.6 | 0.8 | 12 | 2.0 | 0.4 |
| All Other Causes | ... | 759 | 77.4 | 15.0 | 510 | 75.9 | 13.0 | 413 | 67.2 | 12.2 |

a/ Resident deaths only (including resident military personnel)
b/ Rate of death per 100,000 total resident population
c/ Deaths in 1961 and 1971 are civilian deaths only

Note: *The Ninth Revision of the International Classification of Diseases (ICD-9) was introduced effective with the 1979 mortality data.*

d/ Death rates decreased somewhat by changeover to ICD-9
e/ Death rates increased somewhat by changeover to ICD-9

## TABLE 31

## TOTAL RESIDENT DEATHS BY COUNTY AND BY SELECTED CAUSES OF DEATH
## STATE OF HAWAII 1981

| | STATE TOTAL | | HAWAII COUNTY | | HONOLULU COUNTY | | KAUAI COUNTY | | MAUI COUNTY | |
|---|---|---|---|---|---|---|---|---|---|---|
| | NUMBER | RATE* | NUMBER | RATE* | NUMBER | RATE* | NUMBER | RATE* | NUMBER | RATE* |
| TOTAL DEATHS | 4927 | 502.2 | 612 | 644.2 | 3654 | 472.1 | 293 | 743.7 | 425 | 586.7 |
| TUBERCULOSIS, ALL FORMS (010-018,137) | 8 | .8 | -- | | 8 | 1.0 | -- | | -- | |
| SYPHILIS AND ITS SEQUELAE (090-097) | 1 | .1 | -- | | 1 | .1 | -- | | -- | |
| OTHER INFECTIVE & PARASITIC DISEASES (000-139) | 41 | 4.2 | 2 | 2.1 | 32 | 4.1 | -- | | 5 | 6.9 |
| MALIGNANT NEOPLASM (140-208) | 1213 | 123.6 | 135 | 142.1 | 941 | 121.6 | 52 | 132.0 | 85 | 117.3 |
| DIGEST. ORGANS (150-159) | 421 | 42.9 | 47 | 49.5 | 332 | 42.9 | 16 | 40.6 | 26 | 35.9 |
| RESPIRATORY SYSTEM (160-163) | 281 | 28.6 | 25 | 26.3 | 220 | 28.4 | 11 | 27.9 | 25 | 34.5 |
| BREAST (174-175) | 84 | 8.6 | 5 | 5.3 | 73 | 9.4 | 1 | 2.5 | 5 | 6.9 |
| GENITAL ORGANS (179-187) | 102 | 10.4 | 13 | 13.7 | 76 | 9.8 | 5 | 12.7 | 8 | 11.0 |
| URINARY ORGANS (188-189) | 39 | 4.0 | 5 | 5.3 | 32 | 4.1 | 2 | 5.1 | -- | |
| LEUKEMIA (204-208) | 34 | 3.5 | 4 | 4.2 | 26 | 3.4 | 2 | 5.1 | 2 | 2.8 |
| OTHER (140-208) | 252 | 25.7 | 36 | 37.9 | 182 | 23.5 | 15 | 38.1 | 19 | 26.2 |
| DIABETES MELLITUS (250) | 127 | 12.9 | 19 | 20.0 | 93 | 12.0 | 5 | 12.7 | 10 | 13.8 |
| DISEASE OF CIRCULATORY SYSTEM (390-459) | 2080 | 212.0 | 271 | 285.3 | 1515 | 195.7 | 100 | 253.8 | 194 | 267.8 |
| DISEASES OF HEART (390-398,402,404 410-414,415-417,420-429) | 1611 | 164.2 | 200 | 210.5 | 1173 | 151.6 | 86 | 218.3 | 152 | 209.8 |
| RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE (390-398) | 17 | 1.7 | 1 | 1.1 | 15 | 1.9 | 1 | 2.5 | -- | |
| HYPERTENSIVE HEART (402,404) | 67 | 6.8 | 7 | 7.4 | 45 | 5.8 | 8 | 20.3 | 7 | 9.7 |
| ISCHEMIC HEART (410-414) | 1164 | 118.7 | 159 | 167.4 | 857 | 110.7 | 56 | 142.1 | 92 | 127.0 |
| OTHER HEART DISEASE (415-417,420-429) | 363 | 37.0 | 33 | 34.7 | 256 | 33.1 | 21 | 53.3 | 53 | 73.2 |
| HYPERTENSION (401,403) | 19 | 1.9 | 3 | 3.2 | 14 | 1.8 | -- | | 2 | 2.8 |
| CEREBROVASCULAR DISEASE (430-438) | 365 | 37.2 | 57 | 60.0 | 266 | 34.4 | 11 | 27.9 | 31 | 42.8 |
| ARTERIOSCLEROSIS (440) | 33 | 3.4 | 5 | 5.3 | 24 | 3.1 | 1 | 2.5 | 3 | 4.1 |
| OTHER CIRCULATORY (441-459) | 52 | 5.3 | 6 | 6.3 | 88 | 4.9 | 2 | 5.1 | 6 | 8.3 |
| INFLUENZA/PNEUMONIA (480-487) | 156 | 15.9 | 23 | 24.2 | 104 | 13.4 | 12 | 30.5 | 17 | 23.5 |
| BRONCHITIS/EMPHYSEMA/ASTHMA (490-493) | 46 | 4.7 | 4 | 4.2 | 38 | 4.9 | 3 | 7.6 | 1 | 1.4 |
| PEPTIC ULCER (531-533) | 14 | 1.4 | 1 | 1.1 | 11 | 1.4 | 1 | 2.5 | 1 | 1.4 |
| CIRRHOSIS OF LIVER (571) | 70 | 7.1 | 7 | 7.4 | 51 | 6.6 | 5 | 12.7 | 7 | 9.7 |
| NEPHRITIS AND NEPHROSIS (580-589) | 36 | 3.7 | 7 | 7.4 | 22 | 2.8 | 2 | 5.1 | 5 | 6.9 |
| COMPLICATIONS OF PREG. CHILDBIRTH & PUERPERIUM (630-676) | 3 | .3 | -- | | 3 | .4 | -- | | -- | |
| CONGENITAL ANOMALIES (740-759) | 80 | 8.2 | 11 | 11.6 | 60 | 7.8 | 2 | 5.1 | 7 | 9.7 |
| PERINATAL CONDITIONS (760-779) | 87 | 8.9 | 7 | 7.4 | 64 | 8.3 | 6 | 15.2 | 10 | 13.8 |
| SYMPTOMS & ILL-DEFINED COND (780-799) | 48 | 4.9 | 5 | 5.3 | 39 | 5.0 | 1 | 2.5 | 3 | 4.1 |
| ALL OTHER DISEASES (BLANKS,000-799) | 439 | 44.8 | 50 | 52.6 | 332 | 42.9 | 21 | 53.3 | 35 | 48.3 |
| ACCIDENTAL DEATHS (800-949) | 287 | 29.3 | 45 | 47.4 | 194 | 25.1 | 15 | 38.1 | 33 | 45.6 |
| MOTOR VEHICLE (810-825) | 165 | 16.8 | 30 | 31.6 | 107 | 13.8 | 11 | 27.9 | 17 | 23.5 |
| OTHER TRANS. (800-807,826-848) | 23 | 2.3 | 2 | 2.1 | 16 | 2.1 | -- | | 3 | 4.1 |
| POISONING (850-869) | 5 | .5 | -- | | 5 | .6 | -- | | -- | |
| FALLS (880-888) | 24 | 2.4 | 4 | 4.2 | 17 | 2.2 | 1 | 2.5 | 2 | 2.8 |
| FIRES (890-899) | 4 | .4 | -- | | 4 | .5 | -- | | -- | |
| DROWNING & SUBMERSIONS (910) | 39 | 4.0 | 5 | 5.3 | 27 | 3.5 | 1 | 2.5 | 6 | 8.3 |
| FIREARM MISSILES (922) | 2 | .2 | -- | | -- | | 1 | 2.5 | 1 | 1.4 |
| ADVERSE EFFECTS (930-949) | -- | | -- | | -- | | -- | | -- | |
| OTHER ACCIDENTS (800-949) | 25 | 2.5 | 4 | 4.2 | 18 | 2.3 | 1 | 2.5 | 2 | 2.8 |
| SUICIDE (950-959) | 87 | 8.9 | 11 | 11.6 | 66 | 8.5 | 3 | 7.6 | 7 | 9.7 |
| HOMICIDE & LEGAL INTERVENTION (960-978) | 47 | 4.8 | 3 | 3.2 | 41 | 5.3 | -- | | 3 | 4.1 |
| ALL OTHER EXTERNAL CAUSES (800-999,XXXX) | 57 | 5.8 | 11 | 11.6 | 39 | 5.0 | 5 | 12.7 | 2 | 2.8 |

*RATE PER 100,000 TOTAL RESIDENT POPULATION (MAUI COUNTY INCLUDES KALAUPAPA)

# TABLE 31A

## RESIDENT DEATHS BY AGE GROUP, BY SEX AND BY SELECTED CAUSES OF DEATH
## STATE OF HAWAII 1981

| CAUSES OF DEATH<br>UNKNOWN SEX IN MALE CATEG. | ALL AGES | | UNDER 1 YR. | | 1-4 YRS. | | 5-9 YRS. | | 10-14 YRS. | | 15-17 YRS. | | 18-19 YRS. | | 20-24 YRS. | | 25-29 YRS. | | 30-34 YRS. | | 35-39 YRS. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F |
| TOTAL DEATHS | 2999 | 1928 | 97 | 81 | 25 | 10 | 7 | 6 | 10 | 6 | 13 | 11 | 29 | 11 | 77 | 20 | 47 | 19 | 70 | 25 | 49 | 43 |
| TUBERCULOSIS, ALL FORMS (010-018,137) | 8 | | | | | | | | | | | | | | | | | | | | | |
| SYPHILIS AND ITS SEQUELAE (090-097) | 1 | | | | | | | | | | | | | | | | | | | | | |
| OTHER INFECTIVE & PARASITIC DISEASES (000-139) | 20 | 21 | | 2 | | | | 1 | | | | | | | 1 | | | | 1 | 1 | 1 | 2 |
| MALIGNANT NEOPLASM (140-208) | 728 | 485 | | | 4 | 1 | | 2 | 1 | 2 | 1 | 2 | 4 | 2 | 2 | | 6 | 2 | 3 | 5 | 3 | 12 |
| DIGEST. ORGANS (150-159) | 262 | 159 | | | | | | | | | 1 | | | | | | 1 | | 1 | | 1 | 4 |
| RESPIRATORY SYSTEM (160-163) | 210 | 71 | | | | | | | | | | | | | | | | | 1 | | 1 | |
| BREAST (174-175) | | 84 | | | | | | | | | | | | | | | | | | 3 | | 2 |
| GENITAL ORGANS (179-187) | 59 | 43 | | | | | | | | | | 1 | | | | | | 1 | | 1 | | 2 |
| URINARY ORGANS (188-189) | 33 | 6 | | | | | | | | | | | | | | | | | | | | |
| LEUKEMIA (204-208) | 19 | 15 | | | 2 | | | | | 1 | | | 1 | | | | | 1 | | | 1 | 1 |
| OTHER (140-208) | 145 | 107 | | | 2 | 1 | | 2 | 1 | 1 | | 1 | 3 | 2 | 2 | | 5 | | 1 | 1 | | 3 |
| DIABETES MELLITUS (250) | 69 | 58 | | | | | | | | | | | | | | | | | 1 | | 1 | |
| DISEASE OF CIRCULATORY SYSTEM (390-459) | 1232 | 848 | | | | | | 1 | | 2 | | 1 | 1 | | 2 | | 3 | 5 | 6 | 3 | 10 | 10 |
| DISEASES OF HEART (390-398,402,404 410-414,415-417,420-429) | 997 | 614 | | | | | | 1 | | 1 | | 1 | | | 2 | | 2 | 3 | 6 | 2 | 7 | 6 |
| RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE (390-398) | 10 | 7 | | | | | | | | | | | | | 2 | | | 1 | | | | 1 |
| HYPERTENSIVE HEART (402,404) | 30 | 37 | | | | | | | | | | | | | | | | | | | | 1 |
| ISCHEMIC HEART (410-414) | 744 | 420 | | | | | | | | | | | | | | | 1 | | 2 | | 5 | 2 |
| OTHER HEART DISEASE (415-417,420-429) | 213 | 150 | | | | | | 1 | | 1 | | 1 | | | | | 1 | 2 | 4 | 2 | 2 | 2 |
| HYPERTENSION (401,403) | 11 | 8 | | | | | | | | | | | | | | | | | | | | |
| CEREBROVASCULAR DISEASE (430-438) | 173 | 192 | | | | | | | | 1 | | | 1 | | | | 1 | 1 | | 1 | 3 | 3 |
| ARTERIOSCLEROSIS (440) | 16 | 17 | | | | | | | | | | | | | | | | | | | | |
| OTHER CIRCULATORY (441-459) | 35 | 17 | | | | | | | | | | | | | | | | 1 | | | | 1 |
| INFLUENZA/PNEUMONIA (480-487) | 96 | 60 | 1 | | 2 | | 1 | | | | | | | | | | 1 | | | | | |
| BRONCHITIS/EMPHYSEMA/ASTHMA (490-493) | 27 | 19 | | | | | | | | | | | 3 | | | | | 1 | 1 | 1 | | |
| PEPTIC ULCER (531-533) | 9 | 5 | | | | 1 | | | | | | | | | | | | | | | | |
| CIRRHOSIS OF LIVER (571) | 51 | 15 | | | | | | | | | | | | | | | | | 2 | | | 1 |
| NEPHRITIS AND NEPHROSIS (580-589) | 14 | 22 | | | | | | | | 1 | | | | | | | | | | | | 2 |
| COMPLICATIONS OF PREG. CHILDBIRTH & PUERPERIUM (630-676) | | 3 | | 2 | | | | | | | | | | | | | | | | | | 1 |
| CONGENITAL ANOMALIES (740-759) | 45 | 35 | 30 | 26 | 7 | 4 | | | 1 | | | | | 1 | 2 | 1 | | | 1 | 1 | | 1 |
| PERINATAL CONDITIONS (760-779) | 46 | 41 | 46 | 39 | | | | | | | | | | | | | | | | | | 1 |
| SYMPTOMS & ILL-DEFINED COND (780-799) | 30 | 18 | 13 | 8 | | | | | | | | | | | 1 | | 1 | 1 | 1 | 1 | 2 | |
| ALL OTHER DISEASES (BLANKS,000-799) | 263 | 176 | 5 | 3 | 2 | 1 | | 1 | 1 | 1 | | 1 | | 1 | 5 | 2 | 3 | | 4 | 2 | 2 | 5 |
| ACCIDENTAL DEATHS (800-949) | 217 | 70 | 1 | 1 | 8 | 3 | 6 | 1 | 7 | | 10 | 6 | 15 | 4 | 40 | 9 | 20 | 5 | 24 | 5 | 13 | 6 |
| MOTOR VEHICLE (810-825) | 122 | 43 | | 1 | 3 | 2 | 4 | 1 | 2 | | 6 | 5 | 12 | 4 | 25 | 4 | 12 | 2 | 16 | 4 | 8 | 4 |
| OTHER TRANS. (800-807,826-848) | 19 | 4 | | | | | 1 | | 1 | | | | | | 3 | 2 | 4 | 1 | 4 | | | |
| POISONING (850-869) | 3 | 2 | | | | | | | | | | 1 | | | 1 | 1 | 1 | | | | | |
| FALLS (880-888) | 15 | 9 | | | 1 | 1 | | | | | | | | | 2 | 1 | | | 2 | | 1 | 1 |
| FIRES (890-899) | 3 | 1 | | | | | | | | | | | | | | | | | | | | |
| DROWNING & SUBMERSIONS (910) | 35 | 4 | 1 | | 4 | | | | 4 | | 4 | | 3 | | 6 | 1 | 3 | 1 | 2 | | 1 | |
| FIREARM MISSILES (922) | | 2 | | | | | | | | | | | | | | | | 1 | | 1 | | |
| ADVERSE EFFECTS (930-949) | | | | | | | | | | | | | | | | | | | | | | |
| OTHER ACCIDENTS (800-949) | 20 | 5 | | | | | 1 | | | | | | | | 3 | | | | | | 3 | 1 |
| SUICIDE (950-959) | 64 | 23 | | | | | | | | | | | 4 | 3 | 10 | 3 | 6 | | 12 | 3 | 6 | 1 |
| HOMICIDE & LEGAL INTERVENTION (960-978) | 38 | 9 | 1 | | 1 | | | | | | 2 | | 1 | | 8 | 3 | 3 | 3 | 6 | | 5 | 1 |
| ALL OTHER EXTERNAL CAUSES (800-999,XXXX) | 41 | 16 | | | 1 | | | | | | | 1 | 1 | | 6 | 2 | 4 | 2 | 8 | 3 | 6 | |

## TABLE 31A (CONT'D)

### RESIDENT DEATHS BY AGE GROUP, BY SEX AND BY SELECTED CAUSES OF DEATH
### STATE OF HAWAII 1981

| UNKNOWN SEX IN MALE CATEG. | 40-44 YRS. | | 45-49 YRS. | | 50-54 YRS. | | 55-59 YRS. | | 60-64 YRS. | | 65-69 YRS. | | 70-74 YRS. | | 75-79 YRS. | | 80-84 YRS. | | OVER 84 | | UN-KNOWN | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F |
| TOTAL DEATHS | 67 | 33 | 89 | 43 | 180 | 79 | 218 | 129 | 298 | 147 | 334 | 185 | 372 | 165 | 385 | 229 | 333 | 224 | 328 | 462 | 1 | |
| TUBERCULOSIS, ALL FORMS (010-018,137) | | | | | 1 | | 1 | | | | 2 | | 3 | | 1 | | | | | | | |
| SYPHILIS AND ITS SEQUELAE (090-097) | | | | | | | 1 | | | | | | | | | | | | | | | |
| OTHER INFECTIVE & PARASITIC DISEASES (000-139) | 2 | | 1 | 1 | 1 | 2 | 1 | 3 | 2 | 1 | 3 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 3 | 1 | | |
| MALIGNANT NEOPLASM (140-208) | 15 | 14 | 19 | 20 | 52 | 41 | 73 | 53 | 100 | 64 | 119 | 55 | 111 | 45 | 97 | 63 | 69 | 48 | 49 | 54 | | |
| DIGEST. ORGANS (150-159) | 3 | 3 | 6 | 4 | 23 | 14 | 28 | 14 | 38 | 17 | 40 | 17 | 37 | 18 | 36 | 28 | 28 | 19 | 19 | 21 | | |
| RESPIRATORY SYSTEM (160-163) | 7 | 1 | 7 | 1 | 11 | 2 | 28 | 11 | 32 | 15 | 41 | 9 | 32 | 10 | 25 | 9 | 16 | 9 | 9 | 4 | | |
| BREAST (174-175) | | 4 | | 5 | | 9 | | 8 | | 13 | | 14 | | 6 | | 8 | | 3 | | 9 | | |
| GENITAL ORGANS (179-187) | | 3 | | 3 | | 6 | 1 | 8 | 5 | 8 | 8 | | 9 | 2 | 15 | 2 | 11 | 3 | 10 | 3 | | |
| URINARY ORGANS (188-189) | 2 | | 3 | | 4 | 1 | | | 2 | | 2 | | 7 | | 5 | 1 | 5 | 1 | 3 | 3 | | |
| LEUKEMIA (204-208) | 1 | 1 | | 1 | 2 | 2 | 2 | 2 | 1 | | 6 | 2 | | 1 | 2 | | | 1 | 1 | 2 | | |
| OTHER (140-208) | 2 | 2 | 3 | 6 | 12 | 7 | 14 | 10 | 22 | 11 | 22 | 13 | 26 | 8 | 14 | 15 | 9 | 12 | 7 | 12 | | |
| DIABETES MELLITUS (250) | 2 | | 2 | 1 | 5 | 3 | 8 | 7 | 5 | 3 | 14 | 9 | 6 | 6 | 7 | 10 | 11 | 6 | 7 | 13 | | |
| DISEASE OF CIRCULATORY SYSTEM (390-459) | 22 | 10 | 45 | 10 | 75 | 8 | 98 | 39 | 134 | 53 | 136 | 78 | 168 | 82 | 198 | 113 | 146 | 131 | 188 | 302 | | |
| DISEASES OF HEART (390-398,402,404 410-414,415-417,420-429) | 20 | 9 | 38 | 7 | 64 | 8 | 77 | 29 | 119 | 39 | 105 | 62 | 139 | 61 | 156 | 79 | 112 | 93 | 150 | 213 | | |
| RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE (390-398) | | | | | | | 1 | 2 | 1 | 1 | 1 | | 2 | | 1 | 1 | 1 | 1 | 1 | | | |
| HYPERTENSIVE HEART (402,404) | | 1 | 1 | | 3 | 1 | 3 | 5 | 2 | 2 | 3 | 2 | 3 | 6 | 6 | 6 | 5 | 8 | 4 | 5 | | |
| ISCHEMIC HEART (410-414) | 18 | 4 | 35 | 5 | 49 | 5 | 58 | 17 | 95 | 23 | 86 | 49 | 105 | 37 | 111 | 58 | 73 | 62 | 106 | 158 | | |
| OTHER HEART DISEASE (415-417,420-429) | 2 | 4 | 2 | 2 | 12 | 2 | 15 | 5 | 21 | 13 | 15 | 11 | 29 | 18 | 38 | 14 | 33 | 22 | 39 | 50 | | |
| HYPERTENSION (401,403) | 1 | | | | | | 3 | | 1 | | 1 | | | 1 | 1 | 2 | 1 | 1 | 3 | 4 | | |
| CEREBROVASCULAR DISEASE (430-438) | 1 | 1 | 7 | 3 | 8 | | 12 | 9 | 11 | 12 | 26 | 14 | 23 | 18 | 32 | 27 | 24 | 32 | 24 | 70 | | |
| ARTERIOSCLEROSIS (440) | | | | | | | | | | | 1 | 1 | 2 | 1 | 1 | 4 | 5 | 2 | 7 | 9 | | |
| OTHER CIRCULATORY (441-459) | | | | | 3 | | 6 | 1 | 3 | 2 | 3 | 1 | 4 | 1 | 8 | 1 | 4 | 3 | 4 | 6 | | |
| INFLUENZA/PNEUMONIA (480-487) | 1 | | 2 | | 2 | 1 | 1 | 2 | 9 | 2 | 8 | 5 | 14 | 3 | 12 | 9 | 21 | 9 | 21 | 29 | | |
| BRONCHITIS/EMPHYSEMA/ASTHMA (490-493) | | 1 | | 2 | | | 2 | 2 | 1 | | | 3 | 6 | 2 | 9 | 1 | 3 | 2 | 2 | 4 | | |
| PEPTIC ULCER (531-533) | | | | | 1 | | | | 2 | | 2 | | | 1 | 2 | | 1 | | 1 | 3 | | |
| CIRRHOSIS OF LIVER (571) | 3 | | 4 | 2 | 11 | 3 | 7 | 2 | 6 | 1 | 7 | 3 | 6 | 2 | 3 | 3 | 1 | 2 | 1 | | | |
| NEPHRITIS AND NEPHROSIS (580-589) | | | | 1 | 1 | | | 1 | 1 | 2 | | 3 | 4 | 1 | 1 | 3 | 1 | 1 | 6 | 7 | | |
| COMPLICATIONS OF PREG. CHILDBIRTH & PUERPERIUM (630-676) | | | | | | | | | | | | | | | | | | | | | | |
| CONGENITAL ANOMALIES (740-759) | | | 1 | | 1 | | | 1 | 1 | | 1 | | | | | | | | | | | |
| PERINATAL CONDITIONS (760-779) | | | | | | 1 | | | | | | | | | | | | | | | | |
| SYMPTOMS & ILL-DEFINED COND (780-799) | | | | | 2 | | | | 1 | | | 1 | 2 | | 1 | | 3 | 2 | 3 | 5 | | |
| ALL OTHER DISEASES (BLANKS,000-799) | 4 | 4 | 4 | 1 | 14 | 9 | 15 | 11 | 26 | 15 | 29 | 23 | 37 | 20 | 39 | 22 | 33 | 21 | 39 | 33 | 1 | |
| ACCIDENTAL DEATHS (800-949) | 10 | 1 | 5 | 1 | 10 | 5 | 6 | 3 | 4 | 3 | 9 | 3 | 10 | 2 | 8 | 3 | 8 | | 3 | 9 | | |
| MOTOR VEHICLE (810-825) | 7 | 1 | 4 | | 5 | 4 | 1 | 3 | 1 | 3 | 6 | 2 | 3 | 1 | 5 | 1 | 2 | | | 1 | | |
| OTHER TRANS. (800-807,826-848) | 3 | | | 1 | 2 | | | | | | 1 | | | | | | | | | | | |
| POISONING (850-869) | | | | | | | 1 | | | | | | | | | | | | | | | |
| FALLS (880-888) | | | | | 1 | | | | 1 | | | | 3 | | 1 | 1 | 2 | | 1 | 5 | | |
| FIRES (890-899) | | | | | | | | | | | | | 1 | 1 | 1 | | 1 | | | | | |
| DROWNING & SUBMERSIONS (910) | | | | | | 1 | 2 | | 1 | | 1 | 1 | 1 | | | | 2 | | | | | |
| FIREARM MISSILES (922) | | | | | | | | | | | | | | | | | | | | | | |
| ADVERSE EFFECTS (930-949) | | | | | | | | | | | | | | | | | | | | | | |
| OTHER ACCIDENTS (800-949) | | | 1 | | 2 | | 2 | | 1 | | 1 | | 2 | | 1 | 1 | 1 | | 2 | 3 | | |
| SUICIDE (950-959) | 2 | | 2 | 2 | 2 | 6 | 3 | 3 | 4 | 2 | 3 | | 1 | | 2 | | 3 | | 4 | | | |
| HOMICIDE & LEGAL INTERVENTION (960-978) | 5 | | 2 | 1 | | | 1 | | 1 | | | | | | 2 | | | | | 1 | | |
| ALL OTHER EXTERNAL CAUSES (800-999,XXXX) | 1 | 3 | 2 | 1 | 2 | | 1 | 2 | 1 | 1 | 1 | | 3 | | 1 | | 2 | | 1 | 1 | | |

# TABLE 31B

## RESIDENT DEATHS BY AGE GROUP, BY SEX AND BY SELECTED CAUSES OF DEATH
## HAWAII COUNTY 1981

| CAUSES OF DEATH<br>UNKNOWN SEX IN MALE CATEG. | ALL AGES | | UNDER 1 YR. | | 1-4 YRS. | | 5-9 YRS. | | 10-14 YRS. | | 15-17 YRS. | | 18-19 YRS. | | 20-24 YRS. | | 25-29 YRS. | | 30-34 YRS. | | 35-39 YRS. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F |
| TOTAL DEATHS | 410 | 202 | 12 | 8 | 3 | | | | 2 | | | 1 | 4 | 2 | 7 | 1 | 4 | 3 | 11 | 2 | 8 | 1 |
| TUBERCULOSIS, ALL FORMS (010-018,137) | | | | | | | | | | | | | | | | | | | | | | |
| SYPHILIS AND ITS SEQUELAE (090-097) | | | | | | | | | | | | | | | | | | | | | | |
| OTHER INFECTIVE & PARASITIC DISEASES (000-139) | 2 | | | | | | | | | | | | | | | | | | | | | |
| MALIGNANT NEOPLASM (140-208) | 88 | 47 | | | 1 | | | | | | | 1 | | 1 | 1 | | | 1 | | | | 1 |
| DIGEST. ORGANS (150-159) | 28 | 19 | | | | | | | | | | | | | | | | | | | | |
| RESPIRATORY SYSTEM (160-163) | 21 | 4 | | | | | | | | | | | | | | | | | | | | |
| BREAST (174-175) | | 5 | | | | | | | | | | | | | | | | | | | | |
| GENITAL ORGANS (179-187) | 5 | 4 | | | | | | | | | | | | | | | | 1 | | | | 1 |
| URINARY ORGANS (188-189) | 4 | 1 | | | | | | | | | | | | | | | | | | | | |
| LEUKEMIA (204-208) | 4 | | | | 1 | | | | | | | | | | | | | | | | | |
| OTHER (140-208) | 22 | 14 | | | | | | | | | | 1 | | 1 | 1 | | | | | | | |
| DIABETES MELLITUS (250) | 11 | 8 | | | | | | | | | | | | | | | | | | | | |
| DISEASE OF CIRCULATORY SYSTEM (390-459) | 171 | 100 | | | | | | | | | | | | | | | | 1 | 2 | 1 | | |
| DISEASES OF HEART (390-398,402,404 410-414,415-417,420-429) | 132 | 68 | | | | | | | | | | | | | | | | 1 | 2 | 1 | | |
| RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE (390-398) | 1 | | | | | | | | | | | | | | | | | | | | | |
| HYPERTENSIVE HEART (402,404) | 4 | 3 | | | | | | | | | | | | | | | | | | | | |
| ISCHEMIC HEART (410-414) | 106 | 53 | | | | | | | | | | | | | | | | | 1 | | | |
| OTHER HEART DISEASE (415-417,420-429) | 21 | 12 | | | | | | | | | | | | | | | | 1 | 1 | 1 | | |
| HYPERTENSION (401,403) | 2 | 1 | | | | | | | | | | | | | | | | | | | | |
| CEREBROVASCULAR DISEASE (430-438) | 31 | 26 | | | | | | | | | | | | | | | | | | | | |
| ARTERIOSCLEROSIS (440) | 2 | 3 | | | | | | | | | | | | | | | | | | | | |
| OTHER CIRCULATORY (441-459) | 4 | 2 | | | | | | | | | | | | | | | | | | | | |
| INFLUENZA/PNEUMONIA (480-487) | 18 | 5 | | | 1 | | | | | | | | | | | | | | | | | |
| BRONCHITIS/EMPHYSEMA/ASTHMA (490-493) | 2 | 2 | | | | | | | | | | | | | | | | | | | | |
| PEPTIC ULCER (531-533) | | 1 | | | | | | | | | | | | | | | | | | | | |
| CIRRHOSIS OF LIVER (571) | 7 | | | | | | | | | | | | | | | | | | | | | |
| NEPHRITIS AND NEPHROSIS (580-589) | 4 | 3 | | | | | | | | | | | | | | | | | | | | |
| COMPLICATIONS OF PREG. CHILDBIRTH & PUERPERIUM (630-676) | | | | | | | | | | | | | | | | | | | | | | |
| CONGENITAL ANOMALIES (740-759) | 6 | 5 | 5 | 5 | | | | | 1 | | | | | | | | | | | | | |
| PERINATAL CONDITIONS (760-779) | 5 | 2 | 5 | 2 | | | | | | | | | | | | | | | | | | |
| SYMPTOMS & ILL-DEFINED COND (780-799) | 3 | 2 | 2 | 1 | | | | | | | | | | | | | | | | | | |
| ALL OTHER DISEASES (BLANKS,000-799) | 33 | 17 | | | 1 | | | | | | | | | | | | | | | | 1 | |
| ACCIDENTAL DEATHS (800-949) | 40 | 5 | | | | | | | 1 | | | | 3 | 1 | 3 | | 2 | 1 | 8 | 1 | 4 | |
| MOTOR VEHICLE (810-825) | 25 | 5 | | | | | | | | | | | 2 | 1 | 2 | | 1 | 1 | 8 | 1 | 3 | |
| OTHER TRANS. (800-807,826-848) | 2 | | | | | | | | | | | | | | | | | | | | | |
| POISONING (850-869) | | | | | | | | | | | | | | | | | | | | | | |
| FALLS (880-888) | 4 | | | | | | | | | | | | | | 1 | | | | | | | |
| FIRES (890-899) | | | | | | | | | | | | | | | | | | | | | | |
| DROWNING & SUBMERSIONS (910) | 5 | | | | | | | | 1 | | | | 1 | | | | 1 | | | | | |
| FIREARM MISSILES (922) | | | | | | | | | | | | | | | | | | | | | | |
| ADVERSE EFFECTS (930-949) | | | | | | | | | | | | | | | | | | | | | | |
| OTHER ACCIDENTS (800-949) | 4 | | | | | | | | | | | | | | | | | | | | 1 | |
| SUICIDE (950-959) | 9 | 2 | | | | | | | | | | | | | 2 | | 1 | | 1 | | 1 | |
| HOMICIDE & LEGAL INTERVENTION (960-978) | 1 | 2 | | | | | | | | | | | | | | 1 | | | | | 1 | |
| ALL OTHER EXTERNAL CAUSES (800-999,XXXX) | 10 | 1 | | | | | | | | | | | 1 | | 1 | | 1 | | | | 1 | |

## TABLE 31B (CONT'D)

## RESIDENT DEATHS BY AGE GROUP, BY SEX AND BY SELECTED CAUSES OF DEATH
## HAWAII COUNTY 1981

| | 40-44 YRS. | | 45-49 YRS. | | 50-54 YRS. | | 55-59 YRS. | | 60-64 YRS. | | 65-69 YRS. | | 70-74 YRS. | | 75-79 YRS. | | 80-84 YRS. | | OVER 84 | | UN-KNOWN | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UNKNOWN SEX IN MALE CATEG. | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F |
| TOTAL DEATHS | 12 | 3 | 15 | 1 | 23 | 7 | 24 | 11 | 27 | 14 | 37 | 13 | 59 | 19 | 62 | 32 | 43 | 29 | 57 | 55 | | |
| TUBERCULOSIS, ALL FORMS (010-018,137) | | | | | | | | | | | | | | | | | | | | | | |
| SYPHILIS AND ITS SEQUELAE (090-097) | | | | | | | | | | | | | | | | | | | | | | |
| OTHER INFECTIVE & PARASITIC DISEASES (000-139) | | | | | | | | | | | | | | | | | | | 2 | | | |
| MALIGNANT NEOPLASM (140-208) | 1 | | 2 | 1 | 9 | 3 | 2 | 5 | 12 | 6 | 10 | 3 | 16 | 4 | 17 | 8 | 8 | 9 | 9 | 4 | | |
| DIGEST. ORGANS (150-159) | 1 | | | 1 | 5 | | 1 | 1 | 5 | 2 | 7 | 2 | 2 | 2 | 6 | 3 | | 5 | 1 | 3 | | |
| RESPIRATORY SYSTEM (160-163) | | | 1 | | 3 | | | 1 | 3 | 1 | 1 | | 3 | | 4 | 1 | 4 | 1 | 2 | | | |
| BREAST (174-175) | | | | | | | | 1 | | | | 1 | | 1 | | 2 | | | | | | |
| GENITAL ORGANS (179-187) | | | | | | 1 | | | | 1 | | | 2 | | 2 | | 2 | | 3 | | | |
| URINARY ORGANS (188-189) | | | | | | | | | | | | | 2 | | 1 | | 1 | | | 1 | | |
| LEUKEMIA (204-208) | | | | | | | | | 1 | | 1 | | | | | | | | 1 | | | |
| OTHER (140-208) | | | 1 | | 1 | 2 | 1 | 2 | 3 | 2 | 1 | | 7 | 1 | 4 | 2 | 1 | 3 | 2 | | | |
| DIABETES MELLITUS (250) | 1 | | | | 1 | | 2 | | | | 2 | | | 1 | 2 | 3 | 2 | 1 | 1 | 3 | | |
| DISEASE OF CIRCULATORY SYSTEM (390-459) | 3 | 1 | 9 | | 4 | 2 | 12 | 5 | 11 | 6 | 20 | 6 | 29 | 10 | 33 | 18 | 20 | 12 | 28 | 38 | | |
| DISEASES OF HEART (390-398,402,404 410-414,415-417,420-429) | 3 | 1 | 7 | | 3 | 2 | 9 | 4 | 11 | 4 | 18 | 3 | 20 | 8 | 24 | 12 | 17 | 8 | 18 | 24 | | |
| RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE (390-398) | | | | | | | | | | | | | | | | | 1 | | | | | |
| HYPERTENSIVE HEART (402,404) | | | 1 | | | 1 | | | | | | | | | 1 | 1 | | 1 | 2 | | | |
| ISCHEMIC HEART (410-414) | 3 | 1 | 5 | | 3 | | 9 | 3 | 10 | 4 | 17 | 3 | 16 | 7 | 19 | 8 | 12 | 6 | 11 | 21 | | |
| OTHER HEART DISEASE (415-417,420-429) | | | 1 | | | 1 | | 1 | 1 | | 1 | | 4 | 1 | 4 | 3 | 4 | 1 | 5 | 3 | | |
| HYPERTENSION (401,403) | | | | | | | | | | | | | | | | 1 | | | 2 | | | |
| CEREBROVASCULAR DISEASE (430-438) | | | 2 | | 1 | | 3 | 1 | | 2 | 2 | 3 | 5 | 2 | 6 | 4 | 2 | 4 | 6 | 10 | | |
| ARTERIOSCLEROSIS (440) | | | | | | | | | | | | | | | | 1 | | | 2 | 2 | | |
| OTHER CIRCULATORY (441-459) | | | | | | | | | | | | | | | 3 | | 1 | | | 2 | | |
| INFLUENZA/PNEUMONIA (480-487) | | | | | 1 | | 1 | | 1 | | 1 | 1 | 3 | | 3 | | 3 | | 4 | 4 | | |
| BRONCHITIS/EMPHYSEMA/ASTHMA (490-493) | | | | | | | | | | | | | 1 | | 1 | 1 | | 1 | | | | |
| PEPTIC ULCER (531-533) | | | | | | | | | | | | | | 1 | | | | | | | | |
| CIRRHOSIS OF LIVER (571) | | | | | 2 | | 1 | | 2 | | 1 | | | | 1 | | | | | | | |
| NEPHRITIS AND NEPHROSIS (580-589) | | | | | | | | | | | | | 1 | 1 | | 1 | | | 3 | 1 | | |
| COMPLICATIONS OF PREG. CHILDBIRTH & PUERPERIUM (630-676) | | | | | | | | | | | | | | | | | | | | | | |
| CONGENITAL ANOMALIES (740-759) | | | | | | | | | | | | | | | | | | | | | | |
| PERINATAL CONDITIONS (760-779) | | | | | | | | | | | | | | | | | | | | | | |
| SYMPTOMS & ILL-DEFINED COND (780-799) | | | | | | | | | | | | 1 | | | | | 1 | | | | | |
| ALL OTHER DISEASES (BLANKS,000-799) | 1 | 1 | | | 5 | 1 | 2 | | | 1 | 1 | 2 | 5 | 1 | 4 | 1 | 6 | 6 | 7 | 4 | | |
| ACCIDENTAL DEATHS (800-949) | 5 | | 2 | | 1 | | 3 | | | 1 | 2 | | 2 | 1 | 1 | | 1 | | 2 | | | |
| MOTOR VEHICLE (810-825) | 3 | | 1 | | 1 | | 1 | | | 1 | 1 | | | 1 | 1 | | 1 | | | | | |
| OTHER TRANS. (800-807,826-848) | 2 | | | | | | | | | | | | | | | | | | | | | |
| POISONING (850-869) | | | | | | | | | | | | | | | | | | | | | | |
| FALLS (880-888) | | | | | | | | | | | | | 2 | | | | | | 1 | | | |
| FIRES (890-899) | | | | | | | | | | | | | | | | | | | | | | |
| DROWNING & SUBMERSIONS (910) | | | | | | | 1 | | | | 1 | | | | | | | | | | | |
| FIREARM MISSILES (922) | | | | | | | | | | | | | | | | | | | | | | |
| ADVERSE EFFECTS (930-949) | | | | | | | | | | | | | | | | | | | | | | |
| OTHER ACCIDENTS (800-949) | | | 1 | | | | 1 | | | | | | | | | | | | 1 | | | |
| SUICIDE (950-959) | 1 | | 1 | | | 1 | | 1 | | | | | | | | | 1 | | 1 | | | |
| HOMICIDE & LEGAL INTERVENTION (960-978) | | | | | | | | | | | | | | | | | | | | 1 | | |
| ALL OTHER EXTERNAL CAUSES (800-999,XXXX) | | 1 | 1 | | | | 1 | | 1 | | | | 2 | | | | 1 | | | | | |

## TABLE 31C

### RESIDENT DEATHS BY AGE GROUP, BY SEX AND BY SELECTED CAUSES OF DEATH
### HONOLULU COUNTY 1981

| CAUSES OF DEATH<br>UNKNOWN SEX IN MALE CATEG. | ALL AGES |  | UNDER 1 YR. |  | 1-4 YRS. |  | 5-9 YRS. |  | 10-14 YRS. |  | 15-17 YRS. |  | 18-19 YRS. |  | 20-24 YRS. |  | 25-29 YRS. |  | 30-34 YRS. |  | 35-39 YRS. |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F |
| TOTAL DEATHS | 2172 | 1482 | 67 | 63 | 17 | 9 | 6 | 6 | 7 | 4 | 7 | 9 | 22 | 9 | 64 | 17 | 39 | 12 | 46 | 19 | 35 | 37 |
| TUBERCULOSIS, ALL FORMS (010-018,137) | 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SYPHILIS AND ITS SEQUELAE (090-097) | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OTHER INFECTIVE & PARASITIC DISEASES (000-139) | 15 | 17 |  | 2 |  |  |  | 1 |  |  |  |  |  |  | 1 |  |  |  | 1 | 1 |  | 2 |
| MALIGNANT NEOPLASM (140-208) | 551 | 390 |  |  | 3 | 1 |  | 2 | 1 | 1 | 1 | 1 | 4 | 1 |  |  | 4 | 1 | 3 | 5 | 2 | 11 |
| DIGEST. ORGANS (150-159) | 208 | 124 |  |  |  |  |  |  |  |  | 1 |  |  |  |  |  | 1 |  | 1 |  | 1 | 4 |
| RESPIRATORY SYSTEM (160-163) | 156 | 64 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  | 1 |  |
| BREAST (174-175) |  | 73 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3 |  | 2 |
| GENITAL ORGANS (179-187) | 43 | 33 |  |  |  |  |  |  |  |  |  | 1 |  |  |  |  |  |  |  | 1 |  | 1 |
| URINARY ORGANS (188-189) | 27 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| LEUKEMIA (204-208) | 12 | 14 |  |  | 1 |  |  |  |  | 1 |  |  | 1 |  |  |  |  | 1 |  |  |  | 1 |
| OTHER (140-208) | 105 | 77 |  |  | 2 | 1 |  | 2 | 1 |  |  |  | 3 | 1 |  |  | 3 |  | 1 | 1 |  | 3 |
| DIABETES MELLITUS (250) | 52 | 41 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  | 1 |  |
| DISEASE OF CIRCULATORY SYSTEM (390-459) | 882 | 633 |  |  |  |  |  | 1 |  | 2 |  | 1 | 1 |  | 2 |  | 3 | 4 | 2 | 1 | 10 | 9 |
| DISEASES OF HEART (390-398,402,404 410-414,415-417,420-429) | 719 | 454 |  |  |  |  |  | 1 |  | 1 |  | 1 |  |  | 2 |  | 2 | 2 | 2 |  | 7 | 5 |
| RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE (390-398) | 8 | 7 |  |  |  |  |  |  |  |  |  |  |  |  | 2 |  |  | 1 |  |  |  | 1 |
| HYPERTENSIVE HEART (402,404) | 18 | 27 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ISCHEMIC HEART (410-414) | 546 | 311 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  |  |  | 5 | 2 |
| OTHER HEART DISEASE (415-417,420-429) | 147 | 109 |  |  |  |  |  | 1 |  | 1 |  | 1 |  |  |  |  | 1 | 1 | 2 |  | 2 | 2 |
| HYPERTENSION (401,403) | 8 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CEREBROVASCULAR DISEASE (430-438) | 118 | 148 |  |  |  |  |  |  |  | 1 |  |  | 1 |  |  |  | 1 | 1 |  | 1 | 3 | 3 |
| ARTERIOSCLEROSIS (440) | 12 | 12 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OTHER CIRCULATORY (441-459) | 25 | 13 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  |  |  | 1 |
| INFLUENZA/PNEUMONIA (480-487) | 59 | 45 | 1 |  | 1 |  | 1 |  |  |  |  |  |  |  |  |  | 1 |  |  |  |  |  |
| BRONCHITIS/EMPHYSEMA/ASTHMA (490-493) | 22 | 16 |  |  |  |  |  |  |  |  |  |  | 2 |  |  |  |  |  | 1 | 1 |  |  |
| PEPTIC ULCER (531-533) | 7 | 4 |  |  |  | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CIRRHOSIS OF LIVER (571) | 35 | 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  |  | 1 |
| NEPHRITIS AND NEPHROSIS (580-589) | 7 | 15 |  |  |  |  |  |  |  | 1 |  |  |  |  |  |  |  |  |  |  |  | 2 |
| COMPLICATIONS OF PREG. CHILDBIRTH & PUERPERIUM (630-676) |  | 3 |  | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| CONGENITAL ANOMALIES (740-759) | 34 | 26 | 22 | 17 | 6 | 4 |  |  |  |  |  |  |  | 1 | 1 | 1 |  |  | 1 | 1 |  | 1 |
| PERINATAL CONDITIONS (760-779) | 31 | 33 | 31 | 31 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| SYMPTOMS & ILL-DEFINED COND (780-799) | 23 | 16 | 10 | 7 |  |  |  |  |  |  |  |  |  |  | 1 |  | 1 | 1 |  | 1 | 2 |  |
| ALL OTHER DISEASES (BLANKS,000-799) | 196 | 136 | 2 | 3 | 1 | 1 |  | 1 | 1 |  |  |  |  | 1 | 4 | 2 | 3 |  | 3 | 2 | 1 | 4 |
| ACCIDENTAL DEATHS (800-949) | 145 | 49 | 1 | 1 | 5 | 2 | 5 | 1 | 5 |  | 5 | 6 | 10 | 3 | 35 | 7 | 17 | 1 | 12 | 2 | 8 | 3 |
| MOTOR VEHICLE (810-825) | 79 | 28 |  | 1 | 2 | 1 | 3 | 1 | 1 |  | 3 | 5 | 8 | 3 | 22 | 4 | 10 |  | 7 | 2 | 5 | 2 |
| OTHER TRANS. (800-807,826-848) | 15 | 1 |  |  |  |  | 1 |  | 1 |  |  |  |  |  | 3 |  | 4 |  | 3 |  |  |  |
| POISONING (850-869) | 3 | 2 |  |  |  |  |  |  |  |  |  | 1 |  |  | 1 | 1 | 1 |  |  |  |  |  |
| FALLS (880-888) | 9 | 8 |  |  | 1 | 1 |  |  |  |  |  |  |  |  | 1 | 1 |  |  | 1 |  | 1 |  |
| FIRES (890-899) | 3 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DROWNING & SUBMERSIONS (910) | 23 | 4 | 1 |  | 2 |  |  |  | 3 |  | 2 |  | 2 |  | 5 | 1 | 2 | 1 | 1 |  | 1 |  |
| FIREARM MISSILES (922) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ADVERSE EFFECTS (930-949) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OTHER ACCIDENTS (800-949) | 13 | 5 |  |  |  |  | 1 |  |  |  |  |  |  |  | 3 |  |  |  |  |  | 1 | 1 |
| SUICIDE (950-959) | 46 | 20 |  |  |  |  |  |  |  |  |  |  | 4 | 3 | 7 | 3 | 4 |  | 11 | 2 | 4 | 1 |
| HOMICIDE & LEGAL INTERVENTION (960-978) | 34 | 7 |  |  |  |  |  |  |  |  | 1 |  | 1 |  | 8 | 2 | 3 | 3 | 6 |  | 4 | 1 |
| ALL OTHER EXTERNAL CAUSES (800-999,XXXX) | 24 | 15 |  |  | 1 |  |  |  |  |  |  | 1 |  |  | 5 | 2 | 3 | 2 | 4 | 3 | 3 |  |

## TABLE 31C (CONT'D)

### RESIDENT DEATHS BY AGE GROUP, BY SEX AND BY SELECTED CAUSES OF DEATH
### HONOLULU COUNTY 1981

| | 40-44 YRS. | | 45-49 YRS. | | 50-54 YRS. | | 55-59 YRS. | | 60-64 YRS. | | 65-69 YRS. | | 70-74 YRS. | | 75-79 YRS. | | 80-84 YRS. | | OVER 84 | | UN-KNOWN | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UNKNOWN SEX IN MALE CATEG. | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F |
| TOTAL DEATHS | 46 | 28 | 66 | 36 | 142 | 63 | 174 | 100 | 235 | 117 | 247 | 147 | 265 | 129 | 261 | 167 | 207 | 171 | 218 | 339 | 1 | |
| TUBERCULOSIS, ALL FORMS (010-018,137) | | | | | 1 | | 1 | | | | 2 | | 3 | | 1 | | | | | | | |
| SYPHILIS AND ITS SEQUELAE (090-097) | | | | | | | 1 | | | | | | | | | | | | | | | |
| OTHER INFECTIVE & PARASITIC DISEASES (000-139) | 2 | | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | | | |
| MALIGNANT NEOPLASM (140-208) | 14 | 13 | 16 | 16 | 40 | 35 | 65 | 42 | 76 | 50 | 91 | 47 | 85 | 37 | 66 | 49 | 47 | 37 | 33 | 41 | | |
| DIGEST. ORGANS (150-159) | 2 | 3 | 5 | 3 | 16 | 13 | 26 | 11 | 28 | 13 | 29 | 13 | 33 | 14 | 26 | 23 | 24 | 14 | 15 | 13 | | |
| RESPIRATORY SYSTEM (160-163) | 7 | 1 | 6 | 1 | 7 | 2 | 24 | 10 | 23 | 14 | 30 | 9 | 25 | 9 | 17 | 6 | 9 | 8 | 6 | 4 | | |
| BREAST (174-175) | | 4 | | 5 | | 9 | | 5 | | 11 | | 11 | | 5 | | 6 | | 3 | | 9 | | |
| GENITAL ORGANS (179-187) | | 2 | | 1 | | 5 | 1 | 7 | 5 | 5 | 8 | | 7 | 2 | 11 | 2 | 5 | 3 | 6 | 3 | | |
| URINARY ORGANS (188-189) | 2 | | 3 | | 4 | 1 | | | 1 | | 2 | | 5 | | 4 | 1 | 4 | 1 | 2 | 2 | | |
| LEUKEMIA (204-208) | 1 | 1 | | 1 | 2 | 2 | 1 | 2 | | | 4 | 2 | | 1 | 2 | | | 1 | | 1 | | |
| OTHER (140-208) | 2 | 2 | 2 | 5 | 11 | 3 | 13 | 7 | 19 | 7 | 18 | 12 | 15 | 6 | 6 | 11 | 5 | 7 | 4 | 9 | | |
| DIABETES MELLITUS (250) | 1 | | 2 | 1 | 4 | 3 | 6 | 5 | 5 | 3 | 11 | 7 | 5 | 5 | 3 | 6 | 8 | 5 | 5 | 6 | | |
| DISEASE OF CIRCULATORY SYSTEM (390-459) | 15 | 8 | 31 | 8 | 65 | 6 | 75 | 30 | 108 | 44 | 99 | 58 | 113 | 63 | 131 | 76 | 98 | 103 | 129 | 219 | | |
| DISEASES OF HEART (390-398,402,404 410-414,415-417,420-429) | 13 | 7 | 26 | 5 | 55 | 6 | 57 | 22 | 98 | 33 | 70 | 47 | 98 | 45 | 106 | 50 | 77 | 74 | 106 | 155 | | |
| RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE (390-398) | | | | | | | 1 | 2 | 1 | 1 | 1 | | 1 | | 1 | 1 | | 1 | 1 | | | |
| HYPERTENSIVE HEART (402,404) | | 1 | | | 3 | | 1 | 4 | 2 | 2 | 2 | 2 | 2 | 6 | 4 | 3 | 2 | 5 | 2 | 4 | | |
| ISCHEMIC HEART (410-414) | 12 | 2 | 25 | 4 | 40 | 5 | 41 | 13 | 79 | 18 | 56 | 37 | 79 | 23 | 77 | 38 | 53 | 50 | 78 | 119 | | |
| OTHER HEART DISEASE (415-417,420-429) | 1 | 4 | 1 | 1 | 12 | 1 | 14 | 3 | 16 | 12 | 11 | 8 | 16 | 16 | 24 | 8 | 22 | 18 | 25 | 32 | | |
| HYPERTENSION (401,403) | 1 | | | | | | 3 | | | | 1 | | | 1 | 1 | 1 | 1 | | 1 | 4 | | |
| CEREBROVASCULAR DISEASE (430-438) | 1 | 1 | 5 | 3 | 7 | | 9 | 7 | 8 | 10 | 24 | 9 | 10 | 15 | 21 | 21 | 14 | 25 | 14 | 51 | | |
| ARTERIOSCLEROSIS (440) | | | | | | | | | | | 1 | 1 | 1 | 1 | 1 | 3 | 4 | 1 | 5 | 6 | | |
| OTHER CIRCULATORY (441-459) | | | | | 3 | | 6 | 1 | 2 | 1 | 3 | 1 | 4 | 1 | 2 | 1 | 2 | 3 | 3 | 3 | | |
| INFLUENZA/PNEUMONIA (480-487) | 1 | | 1 | | | 1 | | 2 | 7 | | 5 | 2 | 7 | 2 | 7 | 8 | 14 | 9 | 13 | 21 | | |
| BRONCHITIS/EMPHYSEMA/ASTHMA (490-493) | | 1 | | 2 | | | 2 | 2 | 1 | | | 3 | 5 | 2 | 7 | | 3 | 1 | 1 | 4 | | |
| PEPTIC ULCER (531-533) | | | | | | | | | 1 | | 2 | | | | 2 | | 1 | | 1 | 3 | | |
| CIRRHOSIS OF LIVER (571) | 3 | | 4 | 2 | 9 | | 4 | 2 | 2 | 1 | 4 | 3 | 5 | 2 | 2 | 3 | 1 | 2 | | | | |
| NEPHRITIS AND NEPHROSIS (580-589) | | | | | 1 | | | 1 | 1 | 2 | | 3 | 3 | | | 1 | 1 | 1 | 1 | 4 | | |
| COMPLICATIONS OF PREG. CHILDBIRTH & PUERPERIUM (630-676) | | | | | | | | | | | | | | | | | | | | | | |
| CONGENITAL ANOMALIES (740-759) | | | 1 | | 1 | | | 1 | 1 | | 1 | | | | | | | | | | | |
| PERINATAL CONDITIONS (760-779) | | | | | | 1 | | | | | | | | | | | | | | | | |
| SYMPTOMS & ILL-DEFINED COND (780-799) | | | | | 2 | | | | 1 | | | | 1 | | 1 | | 2 | 2 | 2 | 5 | | |
| ALL OTHER DISEASES (BLANKS,000-799) | 1 | 3 | 4 | 1 | 9 | 7 | 12 | 9 | 24 | 11 | 21 | 19 | 28 | 16 | 31 | 20 | 23 | 10 | 27 | 26 | 1 | |
| ACCIDENTAL DEATHS (800-949) | 2 | 1 | 3 | 1 | 6 | 3 | 3 | 1 | 3 | 2 | 6 | 3 | 8 | 1 | 4 | 2 | 6 | | 1 | 9 | | |
| MOTOR VEHICLE (810-825) | 1 | 1 | 3 | | 3 | 2 | | 1 | 1 | 2 | 4 | 2 | 3 | | 2 | | 1 | | | 1 | | |
| OTHER TRANS. (800-807,826-848) | 1 | | | 1 | 1 | | | | | | 1 | | | | | | | | | | | |
| POISONING (850-865) | | | | | | | 1 | | | | | | | | | | | | | | | |
| FALLS (880-888) | | | | | | | | | 1 | | | | 1 | | 1 | 1 | 2 | | | 5 | | |
| FIRES (890-899) | | | | | | | | | | | | | 1 | 1 | 1 | | 1 | | | | | |
| DROWNING & SUBMERSIONS (910) | | | | | | 1 | 1 | | | | | 1 | 1 | | | | 2 | | | | | |
| FIREARM MISSILES (922) | | | | | | | | | | | | | | | | | | | | | | |
| ADVERSE EFFECTS (930-949) | | | | | | | | | | | | | | | | | | | | | | |
| OTHER ACCIDENTS (800-949) | | | | | 2 | | 1 | | 1 | | 1 | | 2 | | | 1 | | | 1 | 3 | | |
| SUICIDE (950-959) | 1 | | | 2 | 1 | 5 | 3 | 2 | 3 | 2 | 2 | | | | 2 | | 1 | | 3 | | | |
| HOMICIDE & LEGAL INTERVENTION (960-978) | 5 | | 2 | 1 | | | 1 | | 1 | | | | | | 2 | | | | | | | |
| ALL OTHER EXTERNAL CAUSES (800-999,XXXX) | 1 | 2 | 1 | 1 | 2 | | | 2 | | 1 | 1 | | 1 | | | | 1 | | 1 | 1 | | |

## TABLE 31D

### RESIDENT DEATHS BY AGE GROUP, BY SEX AND BY SELECTED CAUSES OF DEATH KAUAI COUNTY 1981

| CAUSES OF DEATH<br>UNKNOWN SEX IN MALE CATEG. | ALL AGES |  | UNDER 1 YR. |  | 1-4 YRS. |  | 5-9 YRS. |  | 10-14 YRS. |  | 15-17 YRS. |  | 18-19 YRS. |  | 20-24 YRS. |  | 25-29 YRS. |  | 30-34 YRS. |  | 35-39 YRS. |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F |
| TOTAL DEATHS | 150 | 83 | 5 | 3 | 1 | 1 |  |  |  | 1 | 2 |  |  |  | 2 |  | 2 | 2 | 5 | 2 | 2 | 1 |
| TUBERCULOSIS, ALL FORMS (010-018.137) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SYPHILIS AND ITS SEQUELAE (090-097) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OTHER INFECTIVE & PARASITIC DISEASES (000-139) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MALIGNANT NEOPLASM (140-208) | 35 | 17 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  |  |  |  |  |
| DIGEST. ORGANS (150-159) | 11 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| RESPIRATORY SYSTEM (160-163) | 11 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BREAST (174-175) |  | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GENITAL ORGANS (179-187) | 3 | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| URINARY ORGANS (188-189) | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| LEUKEMIA (204-208) | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OTHER (140-208) | 6 | 9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  |  |  |  |  |
| DIABETES MELLITUS (250) |  | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DISEASE OF CIRCULATORY SYSTEM (390-459) | 65 | 35 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  |  |  |
| DISEASES OF HEART (390-398.402.404 410-414.415-417.420-429) | 54 | 32 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  |  |  |
| RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE (390-398) | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| HYPERTENSIVE HEART (402.404) | 5 | 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ISCHEMIC HEART (410-414) | 32 | 24 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  |  |  |
| OTHER HEART DISEASE (415-417.420-425) | 16 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| HYPERTENSION (401.403) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CEREBROVASCULAR DISEASE (430-438) | 9 | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ARTERIOSCLEROSIS (440) |  | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OTHER CIRCULATORY (441-459) | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| INFLUENZA/PNEUMONIA (480-487) | 8 | 4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BRONCHITIS/EMPHYSEMA/ASTHMA (490-493) | 2 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  |  |  |  |
| PEPTIC ULCER (531-533) | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CIRRHOSIS OF LIVER (571) | 4 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  |  |  |
| NEPHRITIS AND NEPHROSIS (580-589) | 1 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| COMPLICATIONS OF PREG. CHILDBIRTH & PUERPERIUM (630-676) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CONGENITAL ANOMALIES (740-759) | 1 | 1 |  | 1 |  |  |  |  |  |  |  |  |  |  | 1 |  |  |  |  |  |  |  |
| PERINATAL CONDITIONS (760-779) | 4 | 2 | 4 | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SYMPTOMS & ILL-DEFINED COND (780-799) | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ALL OTHER DISEASES (BLANKS.000-799) | 13 | 6 | 1 |  |  |  |  |  |  | 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| ACCIDENTAL DEATHS (800-949) | 7 | 8 |  |  | 1 | 1 |  |  |  |  | 2 |  |  |  | 1 |  |  | 1 | 1 | 2 |  | 1 |
| MOTOR VEHICLE (810-825) | 4 | 7 |  |  | 1 | 1 |  |  |  |  | 2 |  |  |  |  |  |  | 1 |  | 1 |  | 1 |
| OTHER TRANS. (800-807.826-848) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| POISONING (850-869) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| FALLS (880-888) | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  |  |  |
| FIRES (890-899) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DROWNING & SUBMERSIONS (910) | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  |  |  |  |  |  |  |
| FIREARM MISSILES (922) |  | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  |  |
| ADVERSE EFFECTS (930-949) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OTHER ACCIDENTS (800-949) | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SUICIDE (950-959) | 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  |  |  |  |  |
| HOMICIDE & LEGAL INTERVENTION (960-978) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ALL OTHER EXTERNAL CAUSES (800-999.XXXX) | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |  | 2 |  |

TABLE 31D (CONT'D)

RESIDENT DEATHS BY AGE GROUP, BY SEX AND BY SELECTED CAUSES OF DEATH
KAUAI COUNTY 1981

| | 40-44 YRS. | | 45-49 YRS. | | 50-54 YRS. | | 55-59 YRS. | | 60-64 YRS. | | 65-69 YRS. | | 70-74 YRS. | | 75-79 YRS. | | 80-84 YRS. | | OVER 84 | | UN-KNOWN | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UNKNOWN SEX IN MALE CATEG. | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F |
| TOTAL DEATHS | | 1 | 3 | 1 | 3 | 7 | 6 | 4 | 14 | 5 | 19 | 6 | 23 | 7 | 21 | 14 | 21 | 11 | 21 | 17 | | |
| TUBERCULOSIS, ALL FORMS (010-018,137) | | | | | | | | | | | | | | | | | | | | | | |
| SYPHILIS AND ITS SEQUELAE (090-097) | | | | | | | | | | | | | | | | | | | | | | |
| OTHER INFECTIVE & PARASITIC DISEASES (000-139) | | | | | | | | | | | | | | | | | | | | | | |
| MALIGNANT NEOPLASM (140-208) | | 1 | | | | 3 | 1 | 2 | 7 | 3 | 6 | | 3 | 2 | 6 | 3 | 6 | 1 | 5 | 2 | | |
| DIGEST. ORGANS (150-159) | | | | | | 1 | | | 3 | 1 | 1 | | 1 | 1 | 1 | 2 | 3 | | 2 | | | |
| RESPIRATORY SYSTEM (160-163) | | | | | | | | | 3 | | 3 | | 1 | | 2 | | 2 | | | | | |
| BREAST (174-175) | | | | | | | | 1 | | | | | | | | | | | | | | |
| GENITAL ORGANS (179-187) | | 1 | | | | | | | | 1 | | | | | 1 | | 1 | | 1 | | | |
| URINARY ORGANS (188-189) | | | | | | | | | 1 | | | | | | | | | | 1 | | | |
| LEUKEMIA (204-208) | | | | | | | 1 | | | | 1 | | | | | | | | | | | |
| OTHER (140-208) | | | | | | 2 | | 1 | | 1 | 1 | | 1 | 1 | 2 | 1 | | 1 | 1 | 2 | | |
| DIABETES MELLITUS (250) | | | | | | | | | | | | 2 | | | | | | | | 3 | | |
| DISEASE OF CIRCULATORY SYSTEM (390-459) | | | 3 | 1 | 2 | | 4 | 1 | 3 | 2 | 8 | 3 | 13 | 3 | 11 | 9 | 9 | 8 | 11 | 8 | | |
| DISEASES OF HEART (390-398,402,404 410-414,415-417,420-429) | | | 3 | 1 | 2 | | 4 | 1 | 2 | 2 | 8 | 2 | 9 | 3 | 9 | 9 | 8 | 6 | 8 | 8 | | |
| RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE (390-398) | | | | | | | | | | | | | 1 | | | | | | | | | |
| HYPERTENSIVE HEART (402,404) | | | | | | | 2 | 1 | | | 1 | | | | | 1 | 2 | 1 | | | | |
| ISCHEMIC HEART (410-414) | | | 3 | 1 | 2 | | 2 | | 1 | 1 | 6 | 2 | 3 | 3 | 6 | 7 | 4 | 5 | 4 | 5 | | |
| OTHER HEART DISEASE (415-417,420-429) | | | | | | | | | 1 | 1 | 1 | | 5 | | 3 | 1 | 2 | | 4 | 3 | | |
| HYPERTENSION (401,403) | | | | | | | | | | | | | | | | | | | | | | |
| CEREBROVASCULAR DISEASE (430-438) | | | | | | | | | | | | 1 | 4 | | 2 | | 1 | 1 | 2 | | | |
| ARTERIOSCLEROSIS (440) | | | | | | | | | | | | | | | | | | 1 | | | | |
| OTHER CIRCULATORY (441-459) | | | | | | | | | 1 | | | | | | | | | | 1 | | | |
| INFLUENZA/PNEUMONIA (480-487) | | | | | | | | | .1 | | 1 | 1 | 3 | | 1 | 1 | 2 | | | 2 | | |
| BRONCHITIS/EMPHYSEMA/ASTHMA (490-493) | | | | | | | | | | | | | | | 1 | | | | 1 | | | |
| PEPTIC ULCER (531-533) | | | | | 1 | | | | | | | | | | | | | | | | | |
| CIRRHOSIS OF LIVER (571) | | | | | | 1 | 1 | | 1 | | 1 | | | | | | | | | | | |
| NEPHRITIS AND NEPHROSIS (580-589) | | | | | | | | | | | | | | | | 1 | | | 1 | | | |
| COMPLICATIONS OF PREG. CHILDBIRTH & PUERPERIUM (630-676) | | | | | | | | | | | | | | | | | | | | | | |
| CONGENITAL ANOMALIES (740-759) | | | | | | | | | | | | | | | | | | | | | | |
| PERINATAL CONDITIONS (760-779) | | | | | | | | | | | | | | | | | | | | | | |
| SYMPTOMS & ILL-DEFINED COND (780-799) | | | | | | | | | | | | | 1 | | | | | | | | | |
| ALL OTHER DISEASES (BLANKS,000-799) | | | | | | 1 | | | 2 | | 2 | | 3 | 2 | | | 2 | 2 | 3 | 2 | | |
| ACCIDENTAL DEATHS (800-949) | | | | | | 2 | | 1 | | | | | | | 1 | | 1 | | | | | |
| MOTOR VEHICLE (810-825) | | | | | | 2 | | 1 | | | | | | | 1 | | | | | | | |
| OTHER TRANS. (800-807,826-848) | | | | | | | | | | | | | | | | | | | | | | |
| POISONING (850-869) | | | | | | | | | | | | | | | | | | | | | | |
| FALLS (880-888) | | | | | | | | | | | | | | | | | | | | | | |
| FIRES (890-899) | | | | | | | | | | | | | | | | | | | | | | |
| DROWNING & SUBMERSIONS (910) | | | | | | | | | | | | | | | | | | | | | | |
| FIREARM MISSILES (922) | | | | | | | | | | | | | | | | | | | | | | |
| ADVERSE EFFECTS (930-949) | | | | | | | | | | | | | | | | | | | | | | |
| OTHER ACCIDENTS (800-949) | | | | | | | | | | | | | | | | | 1 | | | | | |
| SUICIDE (950-959) | | | | | | | | | | | 1 | | | | | | 1 | | | | | |
| HOMICIDE & LEGAL INTERVENTION (960-978) | | | | | | | | | | | | | | | | | | | | | | |
| ALL OTHER EXTERNAL CAUSES (800-999,XXXX) | | | | | | | | | | | | | | | 1 | | | | | | | |

# TABLE 31E

## RESIDENT DEATHS BY AGE GROUP, BY SEX AND BY SELECTED CAUSES OF DEATH
## MAUI COUNTY 1981

| CAUSES OF DEATH | ALL AGES | | UNDER 1 YR. | | 1-4 YRS. | | 5-9 YRS. | | 10-14 YRS. | | 15-17 YRS. | | 18-19 YRS. | | 20-24 YRS. | | 25-29 YRS. | | 30-34 YRS. | | 35-39 YRS. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UNKNOWN SEX IN MALE CATEG. | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F |
| TOTAL DEATHS | 266 | 159 | 13 | 7 | 4 | | 1 | | 1 | 1 | 4 | 1 | 3 | | 4 | 2 | 2 | 2 | 8 | 2 | 4 | 4 |
| TUBERCULOSIS, ALL FORMS (010-018,137) | | | | | | | | | | | | | | | | | | | | | | |
| SYPHILIS AND ITS SEQUELAE (090-097) | | | | | | | | | | | | | | | | | | | | | | |
| OTHER INFECTIVE & PARASITIC DISEASES (000-139) | 2 | 3 | | | | | | | | | | | | | | | | | | | 1 | |
| MALIGNANT NEOPLASM (140-208) | 54 | 31 | | | | | | | | 1 | | | | | 1 | | 1 | | | | 1 | |
| DIGEST. ORGANS (150-159) | 15 | 11 | | | | | | | | | | | | | | | | | | | | |
| RESPIRATORY SYSTEM (160-163) | 22 | 3 | | | | | | | | | | | | | | | | | | | | |
| BREAST (174-175) | | 5 | | | | | | | | | | | | | | | | | | | | |
| GENITAL ORGANS (179-187) | 4 | 4 | | | | | | | | | | | | | | | | | | | | |
| URINARY ORGANS (188-189) | | | | | | | | | | | | | | | | | | | | | | |
| LEUKEMIA (204-208) | 1 | 1 | | | | | | | | | | | | | | | | | | | 1 | |
| OTHER (140-208) | 12 | 7 | | | | | | | | 1 | | | | | 1 | | 1 | | | | | |
| DIABETES MELLITUS (250) | 6 | 4 | | | | | | | | | | | | | | | | | | | | |
| DISEASE OF CIRCULATORY SYSTEM (390-459) | 114 | 80 | | | | | | | | | | | | | | | | | 1 | 1 | | 1 |
| DISEASES OF HEART (390-398,402,404 410-414,415-417,420-429) | 92 | 60 | | | | | | | | | | | | | | | | | 1 | 1 | | 1 |
| RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE (390-398) | | | | | | | | | | | | | | | | | | | | | | |
| HYPERTENSIVE HEART (402,404) | 3 | 4 | | | | | | | | | | | | | | | | | | | | 1 |
| ISCHEMIC HEART (410-414) | 60 | 32 | | | | | | | | | | | | | | | | | | | | |
| OTHER HEART DISEASE (415-417,420-429) | 29 | 24 | | | | | | | | | | | | | | | | | 1 | 1 | | |
| HYPERTENSION (401,403) | 1 | 1 | | | | | | | | | | | | | | | | | | | | |
| CEREBROVASCULAR DISEASE (430-438) | 15 | 16 | | | | | | | | | | | | | | | | | | | | |
| ARTERIOSCLEROSIS (440) | 2 | 1 | | | | | | | | | | | | | | | | | | | | |
| OTHER CIRCULATORY (441-459) | 4 | 2 | | | | | | | | | | | | | | | | | | | | |
| INFLUENZA/PNEUMONIA (480-487) | 11 | 6 | | | | | | | | | | | | | | | | | | | | |
| BRONCHITIS/EMPHYSEMA/ASTHMA (490-493) | 1 | | | | | | | | | | | | 1 | | | | | | | | | |
| PEPTIC ULCER (531-533) | 1 | | | | | | | | | | | | | | | | | | | | | |
| CIRRHOSIS OF LIVER (571) | 5 | 2 | | | | | | | | | | | | | | | | | | | | |
| NEPHRITIS AND NEPHROSIS (580-589) | 2 | 3 | | | | | | | | | | | | | | | | | | | | |
| COMPLICATIONS OF PREG. CHILDBIRTH & PUERPERIUM (630-676) | | | | | | | | | | | | | | | | | | | | | | |
| CONGENITAL ANOMALIES (740-759) | 4 | 3 | 3 | 3 | 1 | | | | | | | | | | | | | | | | | |
| PERINATAL CONDITIONS (760-779) | 6 | 4 | 6 | 4 | | | | | | | | | | | | | | | | | | |
| SYMPTOMS & ILL-DEFINED COND (780-799) | 3 | | 1 | | | | | | | | | | | | | | | | 1 | | | |
| ALL OTHER DISEASES (BLANKS,000-799) | 21 | 14 | 2 | | | | | | | | | 1 | | | 1 | | | | 1 | | | 1 |
| ACCIDENTAL DEATHS (800-949) | 25 | 8 | | | 2 | | 1 | | 1 | | 3 | | 2 | | 1 | 2 | 1 | 2 | 3 | | 1 | 2 |
| MOTOR VEHICLE (810-825) | 14 | 3 | | | | | 1 | | 1 | | 1 | | 2 | | 1 | | 1 | | 1 | | | 1 |
| OTHER TRANS. (800-807,826-848) | 2 | 3 | | | | | | | | | | | | | | 2 | | 1 | 1 | | | |
| POISONING (850-869) | | | | | | | | | | | | | | | | | | | | | | |
| FALLS (880-888) | 1 | 1 | | | | | | | | | | | | | | | | | | | | 1 |
| FIRES (890-899) | | | | | | | | | | | | | | | | | | | | | | |
| DROWNING & SUBMERSIONS (910) | 6 | | | | 2 | | | | | | 2 | | | | | | | | 1 | | | |
| FIREARM MISSILES (922) | | 1 | | | | | | | | | | | | | | | | 1 | | | | |
| ADVERSE EFFECTS (930-949) | | | | | | | | | | | | | | | | | | | | | | |
| OTHER ACCIDENTS (800-949) | 2 | | | | | | | | | | | | | | | | | | | | 1 | |
| SUICIDE (950-959) | 6 | 1 | | | | | | | | | | | | | 1 | | | | | 1 | 1 | |
| HOMICIDE & LEGAL INTERVENTION (960-978) | 3 | | 1 | | 1 | | | | | | 1 | | | | | | | | | | | |
| ALL OTHER EXTERNAL CAUSES (800-999,XXXX) | 2 | | | | | | | | | | | | | | | | | | 2 | | | |

## TABLE 31E (CONT'D)

## RESIDENT DEATHS BY AGE GROUP, BY SEX AND BY SELECTED CAUSES OF DEATH
## MAUI COUNTY 1981

| | 40-44 YRS. | | 45-49 YRS. | | 50-54 YRS. | | 55-59 YRS. | | 60-64 YRS. | | 65-69 YRS. | | 70-74 YRS. | | 75-79 YRS. | | 80-84 YRS. | | OVER 84 | | UN-KNOWN | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UNKNOWN SEX IN MALE CATEG. | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F |
| TOTAL DEATHS | 9 | 1 | 5 | 5 | 12 | 2 | 14 | 13 | 22 | 11 | 30 | 19 | 25 | 10 | 41 | 16 | 32 | 12 | 32 | 51 | | |
| TUBERCULOSIS, ALL FORMS (010-018,137) | | | | | | | | | | | | | | | | | | | | | | |
| SYPHILIS AND ITS SEQUELAE (090-097) | | | | | | | | | | | | | | | | | | | | | | |
| OTHER INFECTIVE & PARASITIC DISEASES (000-139) | | | | | | | | 1 | 1 | | | | | | | | | 1 | | 1 | | |
| MALIGNANT NEOPLASM (140-208) | | | 1 | 3 | 3 | | 5 | 4 | 5 | 5 | 12 | 5 | 7 | 2 | 8 | 3 | 8 | 1 | 2 | 7 | | |
| DIGEST. ORGANS (150-159) | | | 1 | | 2 | | 1 | 2 | 2 | 1 | 3 | 2 | 1 | 1 | 3 | | 1 | | 1 | 5 | | |
| RESPIRATORY SYSTEM (160-163) | | | | | 1 | | 4 | | 3 | | 7 | | 3 | 1 | 2 | 2 | 1 | | 1 | | | |
| BREAST (174-175) | | | | | | | | 1 | | 2 | | 2 | | | | | | | | | | |
| GENITAL ORGANS (179-187) | | | | 2 | | | | 1 | | 1 | | | | | 1 | | 3 | | | | | |
| URINARY ORGANS (188-189) | | | | | | | | | | | | | | | | | | | | | | |
| LEUKEMIA (204-208) | | | | | | | | | | | | | | | | | | | | 1 | | |
| OTHER (140-208) | | | | 1 | | | | | | 1 | 2 | 1 | 3 | | 2 | 1 | 3 | 1 | | 1 | | |
| DIABETES MELLITUS (250) | | | | | | | | 2 | | | 1 | | 1 | | 2 | 1 | 1 | | 1 | 1 | | |
| DISEASE OF CIRCULATORY SYSTEM (390-459) | 4 | 1 | 2 | 1 | 4 | | 7 | 3 | 12 | 1 | 9 | 11 | 13 | 6 | 23 | 10 | 19 | 8 | 20 | 37 | | |
| DISEASES OF HEART (390-398,402,404 410-414,415-417,420-429) | 4 | 1 | 2 | 1 | 4 | | 7 | 2 | 8 | | 9 | 10 | 12 | 5 | 17 | 8 | 10 | 5 | 18 | 26 | | |
| RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE (390-398) | | | | | | | | | | | | | | | | | | | | | | |
| HYPERTENSIVE HEART (402,404) | | | | | | | | | | | | | 1 | | 1 | 1 | 1 | 1 | | 1 | | |
| ISCHEMIC HEART (410-414) | 3 | 1 | 2 | | 4 | | 6 | 1 | 5 | | 7 | 7 | 7 | 4 | 9 | 5 | 4 | 1 | 13 | 13 | | |
| OTHER HEART DISEASE (415-417,420-429) | 1 | | | 1 | | | 1 | 1 | 3 | | 2 | 3 | 4 | 1 | 7 | 2 | 5 | 3 | 5 | 12 | | |
| HYPERTENSION (401,403) | | | | | | | | | 1 | | | | | | | | | 1 | | | | |
| CEREBROVASCULAR DISEASE (430-438) | | | | | | | | 1 | 3 | | | 1 | | 1 | 3 | 2 | 7 | 2 | 2 | 9 | | |
| ARTERIOSCLEROSIS (440) | | | | | | | | | | | | | 1 | | | | 1 | | | 1 | | |
| OTHER CIRCULATORY (441-459) | | | | | | | | | | 1 | | | | | 3 | | 1 | | | 1 | | |
| INFLUENZA/PNEUMONIA (480-487) | | | 1 | | 1 | | | | | 2 | 1 | 1 | 1 | 1 | 1 | | 2 | | 4 | 2 | | |
| BRONCHITIS/EMPHYSEMA/ASTHMA (490-493) | | | | | | | | | | | | | | | | | | | | | | |
| PEPTIC ULCER (531-533) | | | | | | | | | 1 | | | | | | | | | | | | | |
| CIRRHOSIS OF LIVER (571) | | | | | | 2 | 1 | | 1 | | 1 | | 1 | | | | | | 1 | | | |
| NEPHRITIS AND NEPHROSIS (580-585) | | | | 1 | | | | | | | | | | | 1 | | | | 1 | 2 | | |
| COMPLICATIONS OF PREG. CHILDBIRTH & PUERPERIUM (630-676) | | | | | | | | | | | | | | | | | | | | | | |
| CONGENITAL ANOMALIES (740-759) | | | | | | | | | | | | | | | | | | | | | | |
| PERINATAL CONDITIONS (760-779) | | | | | | | | | | | | | | | | | | | | | | |
| SYMPTOMS & ILL-DEFINED COND (780-799) | | | | | | | | | | | | | | | | | | | 1 | | | |
| ALL OTHER DISEASES (BLANKS,000-799) | 2 | | | | | | 1 | 2 | | 3 | 5 | 2 | 1 | 1 | 4 | 1 | 2 | 2 | 2 | 1 | | |
| ACCIDENTAL DEATHS (800-949) | 3 | | | | 3 | | | 1 | 1 | | 1 | | | | 2 | 1 | | | | | | |
| MOTOR VEHICLE (810-825) | 3 | | | | 1 | | | 1 | | | 1 | | | | 1 | 1 | | | | | | |
| OTHER TRANS. (800-807,826-848) | | | | | 1 | | | | | | | | | | | | | | | | | |
| POISONING (850-869) | | | | | | | | | | | | | | | | | | | | | | |
| FALLS (880-888) | | | | | 1 | | | | | | | | | | | | | | | | | |
| FIRES (890-899) | | | | | | | | | | | | | | | | | | | | | | |
| DROWNING & SUBMERSIONS (910) | | | | | | | | | 1 | | | | | | | | | | | | | |
| FIREARM MISSILES (922) | | | | | | | | | | | | | | | | | | | | | | |
| ADVERSE EFFECTS (930-949) | | | | | | | | | | | | | | | | | | | | | | |
| OTHER ACCIDENTS (800-949) | | | | | | | | | | | | | | | 1 | | | | | | | |
| SUICIDE (950-959) | | | 1 | | 1 | | | | 1 | | | | 1 | | | | | | | | | |
| HOMICIDE & LEGAL INTERVENTION (960-978) | | | | | | | | | | | | | | | | | | | | | | |
| ALL OTHER EXTERNAL CAUSES (800-999,XXXX) | | | | | | | | | | | | | | | | | | | | | | |

TABLE 32

TOTAL RECORDED DEATHS FROM MALIGNANT NEOPLASM BY MAJOR AND SELECTED SITES. SEX. AND AGE
STATE OF HAWAII 1981

| CAUSES OF DEATH<br>UNKNOWN SEX IN MALE CATEG. | | ALL AGES | | UNDER 1 YR. | | 1-4 YRS. | | 5-9 YRS. | | 10-14 YRS. | | 15-17 YRS. | | 18-19 YRS. | | 20-24 YRS. | | 25-29 YRS. | | 30-34 YRS. | | 35-39 YRS. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F |
| BUCCAL CAVITY AND PHARYNX | 140-149 | 32 | 9 | | | | | | | | | | | | | 1 | | | | | | | |
| LIP | 140 | | | | | | | | | | | | | | | | | | | | | | |
| TONGUE | 141 | 8 | 4 | | | | | | | | | | | | | 1 | | | | | | | |
| SALIVARY GLAND | 142 | 5 | 1 | | | | | | | | | | | | | | | | | | | | |
| GUM | 143 | | | | | | | | | | | | | | | | | | | | | | |
| FLOOR OF MOUTH | 144 | 2 | 1 | | | | | | | | | | | | | | | | | | | | |
| OTHER & UNSPEC PARTS OF MOUTH | 145 | 3 | 1 | | | | | | | | | | | | | | | | | | | | |
| OROPHARYNX | 146 | 3 | 1 | | | | | | | | | | | | | | | | | | | | |
| NASOPHARYNX | 147 | 6 | 1 | | | | | | | | | | | | | | | | | | | | |
| HYPOPHARYNX | 148 | 2 | | | | | | | | | | | | | | | | | | | | | |
| UNSPECIF BUCCAL CAVITY AND PHARYNX | 149 | 3 | | | | | | | | | | | | | | | | | | | | | |
| DIGESTIVE ORGANS & PERITONEUM | 150-159 | 270 | 162 | | | | | | | | | 1 | | | | | | 1 | | 1 | | 1 | 4 |
| ESOPHAGUS | 150 | 23 | 3 | | | | | | | | | | | | | | | | | | | | 1 |
| STOMACH | 151 | 68 | 51 | | | | | | | | | 1 | | | | | | | | | | | 1 |
| SMALL INTESTINE & DUODENUM | 152 | 1 | | | | | | | | | | | | | | | | | | | | | |
| LARGE INTESTINE | 153 | 78 | 48 | | | | | | | | | | | | | | | | | 1 | | | |
| RECTUM & RECTOSIGMOID JUNCTION | 154 | 20 | 6 | | | | | | | | | | | | | | | | | | | | 1 |
| LIVER AND INTRAHEPATIC BILE DUCTS | 155 | 33 | 10 | | | | | | | | | | | | | | | | | | | | |
| GALL BLADDER & BILE DUCTS | 156 | 13 | 9 | | | | | | | | | | | | | | | | | | | | |
| PANCREAS | 157 | 32 | 34 | | | | | | | | | | | | | | | 1 | | | | 1 | 1 |
| PERITONEUM & RETROPERITONEAL TISS | 158 | 1 | 1 | | | | | | | | | | | | | | | | | | | | |
| UNSPEC DIGESTIVE ORGANS | 159 | 1 | | | | | | | | | | | | | | | | | | | | | |
| RESPIRATORY SYSTEM | 160-165 | 223 | 75 | | | | | | | | | | | | | 1 | | | | 1 | | 2 | |
| NOSE.NASAL CAV. MIDDLE EAR & ACCES | 160 | 1 | 1 | | | | | | | | | | | | | | | | | | | | |
| LARYNX | 161 | 5 | 3 | | | | | | | | | | | | | | | | | | | | |
| TRACHEA. BRONCHUS & LUNG | 162 | 214 | 71 | | | | | | | | | | | | | | | | | 1 | | 2 | |
| OTHER AND UNSPECIFIED ORGANS | 163-165 | 3 | | | | | | | | | | | | | | 1 | | | | | | | |
| BONE. CONN TISSUE. SKIN BREAST | 170-175 | 13 | 94 | | | | | | | | 1 | | | 1 | 1 | | | 1 | | | 4 | | 2 |
| BONE | 170 | 1 | 5 | | | | | | | | 1 | | | | 1 | | | | | | | | |
| CONNECTIVE & OTHER SOFT TISSUE | 171 | 2 | 3 | | | | | | | | | | | 1 | | | | 1 | | | 1 | | |
| MELANOMA OF SKIN | 172 | 6 | | | | | | | | | | | | | | | | | | | | | |
| NEOPLASM OF SKIN | 173 | 4 | | | | | | | | | | | | | | | | | | | | | |
| BREAST | 174-175 | | 86 | | | | | | | | | | | | | | | | | | 3 | | 2 |
| GENITOURINARY ORGANS | 179-189 | 94 | 50 | | | | | | | | | | 1 | | | | | | 1 | | 1 | | 2 |
| CERVIC UTERI | 180 | | 11 | | | | | | | | | | | | | | | | 1 | | 1 | | 1 |
| PLACENTA | 181 | | | | | | | | | | | | | | | | | | | | | | |
| OTHER MALIG NEOPLASM OF UTERUS | 179.182 | | 13 | | | | | | | | | | 1 | | | | | | | | | | |
| OVARY. FALLOP TUBE & BROAD LIGAM | 183 | | 19 | | | | | | | | | | | | | | | | | | | | 1 |
| OTHER & UNSPEC FEMALE GENITAL ORG | 184 | | 1 | | | | | | | | | | | | | | | | | | | | |
| PROSTATE | 185 | 60 | | | | | | | | | | | | | | | | | | | | | |
| TESTIS | 186 | | | | | | | | | | | | | | | | | | | | | | |
| OTHER & UNSPEC MALE GENITAL ORGAN | 187 | | | | | | | | | | | | | | | | | | | | | | |
| BLADDER | 188 | 12 | 4 | | | | | | | | | | | | | | | | | | | | |
| OTHER & UNSPEC URINARY ORGANS | 189 | 22 | 2 | | | | | | | | | | | | | | | | | | | | |
| OTHER AND UNSPECIFIED SITES | 190-199 | 67 | 72 | | | 3 | 1 | | 2 | 1 | | | 1 | 1 | | | | 2 | 1 | 1 | | | 1 |
| EYE | 190 | | | | | | | | | | | | | | | | | | | | | | |
| BRAIN | 191 | 17 | 13 | | | 3 | | | 2 | 1 | | | | | | | | 1 | | | | | |
| OTHER PARTS OF NERVOUS SYSTEM | 192 | | 2 | | | | | | | | | | 1 | | | | | | 1 | | | | |
| THYROID GLAND | 193 | 1 | 5 | | | | | | | | | | | | | | | | | | | | |
| OTHER ENDOCRINE GLANDS | 194 | | 2 | | | | 1 | | | | | | | | | | | | | | | | |
| ILL-DEFINED SITES | 195 | | | | | | | | | | | | | | | | | | | | | | |
| SECONDARY & UNSPECIFIED MALIGNANT NEOPLASM OF LYMPH NODES | 196 | 8 | 6 | | | | | | | | | | | | | | | | | | | | 1 |
| SECONDARY MALIGNANT NEOPLASM OF RESPIRATORY & DIGESTIVE SYSTEMS | 197 | | 1 | | | | | | | | | | | | | | | | | | | | |
| OTHER SECONDARY MALIG NEOPLASM | 198 | | 1 | | | | | | | | | | | | | | | | | | | | |
| WITHOUT SPECIFICATION OF SITE | 199 | 41 | 42 | | | | | | | | | | | 1 | | | | 1 | | 1 | | | |
| LYMPHATIC & HEMATOPOIETIC TISS | 200-208 | 57 | 40 | | | 4 | | | | | 1 | | | 2 | 1 | | | 2 | 1 | 1 | | 2 | 3 |
| LYMPHOSARCOMA & RETIC-CELL SARCO | 200 | 7 | 4 | | | 1 | | | | | | | | | 1 | | | | | | | | |
| HODGKINS DISEASE | 201 | 3 | 1 | | | | | | | | | | | 1 | | | | 1 | | | | | 1 |
| OTHER NEOPLASMS OF LYMPHOID TISS | 202 | 19 | 15 | | | | | | | | | | | | | | | 1 | | 1 | | 1 | 1 |
| MULTIPLE MYELOMA | 203 | 8 | 4 | | | | | | | | | | | | | | | | | | | | |
| LYMPHATIC LEUKEMIA | 204 | 5 | 2 | | | 3 | | | | | | | | 1 | | | | | | | | | 1 |
| MYELOID LEUKEMIA | 205 | 5 | 12 | | | | | | | | | | | | | | | | 1 | | | | |
| MONOCYTIC LEUKEMIA | 206 | | | | | | | | | | | | | | | | | | | | | | |
| OTHER AND UNSPECIFIED LEUKEMIA | 207-208 | 10 | 2 | | | | | | | | 1 | | | | | | | | | | | 1 | |
| TOTAL MALIGNANT NEOPLASMS | 140-208 | 756 | 502 | | | 7 | 1 | | 2 | 1 | 2 | 1 | 2 | 4 | 2 | 2 | | 6 | 3 | 4 | 5 | 5 | 12 |

TABLE 32 (CONT'D)

TOTAL RECORDED DEATHS FROM MALIGNANT NEOPLASM BY MAJOR AND SELECTED SITES, SEX, AND AGE
STATE OF HAWAII 1981

| | | 40-44 YRS. | | 45-49 YRS. | | 50-54 YRS. | | 55-59 YRS. | | 60-64 YRS. | | 65-69 YRS. | | 70-74 YRS. | | 75-79 YRS. | | 80-84 YRS. | | OVER 84 | | UN-KNOWN | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UNKNOWN SEX IN MALE CATEG. | | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F |
| BUCCAL CAVITY AND PHARYNX | 140-149 | | | | | 3 | 1 | 6 | 1 | 4 | | 4 | 1 | 7 | 4 | 3 | 2 | | | 4 | | | |
| LIP | 140 | | | | | | | | | | | | | | | | | | | | | | |
| TONGUE | 141 | | | | | | 1 | 2 | 1 | 1 | | | 1 | 2 | 1 | 1 | | | | 1 | | | |
| SALIVARY GLAND | 142 | | | | | | | 2 | | | | | | 2 | | | 1 | | | 1 | | | |
| GUM | 143 | | | | | | | | | | | | | | | | | | | | | | |
| FLOOR OF MOUTH | 144 | | | | | | | | | | | | | | 1 | 1 | | | | 1 | | | |
| OTHER & UNSPEC PARTS OF MOUTH | 145 | | | | | 2 | | | | | | | | | 1 | 1 | | | | | | | |
| OROPHARYNX | 146 | | | | | 1 | | | | | | 2 | | | | | 1 | | | | | | |
| NASOPHARYNX | 147 | | | | | | | 2 | | 1 | | | | 2 | 1 | | | | | 1 | | | |
| HYPOPHARYNX | 148 | | | | | | | | | | | 2 | | | | | | | | | | | |
| UNSPECIF BUCCAL CAVITY AND PHARYNX | 149 | | | | | | | | | 2 | | | | 1 | | | | | | | | | |
| DIGESTIVE ORGANS & PERITONEUM | 150-159 | 3 | 3 | 9 | 4 | 23 | 14 | 28 | 16 | 38 | 17 | 42 | 17 | 39 | 18 | 37 | 28 | 28 | 19 | 19 | 22 | | |
| ESOPHAGUS | 150 | | | 1 | | 5 | | 4 | | 4 | 1 | 1 | | 4 | | 4 | 1 | | | | | | |
| STOMACH | 151 | | 2 | 2 | 2 | 3 | 5 | 7 | 4 | 9 | 3 | 9 | 6 | 13 | 6 | 8 | 10 | 13 | 5 | 3 | 7 | | |
| SMALL INTESTINE & DUODENUM | 152 | | | | | | | 1 | | | | | | | | | | | | | | | |
| LARGE INTESTINE | 153 | 1 | | 2 | 1 | 7 | 4 | 10 | 5 | 13 | 8 | 14 | 6 | 7 | 6 | 9 | 6 | 8 | 7 | 6 | 5 | | |
| RECTUM & RECTOSIGMOID JUNCTION | 154 | | | | | 2 | | 1 | 1 | 3 | | 3 | | 1 | 2 | 4 | 1 | 3 | 1 | 3 | | | |
| LIVER AND INTRAHEPATIC BILE DUCTS | 155 | | | 4 | | 4 | 2 | 2 | 1 | 3 | 2 | 5 | | 8 | | 6 | 1 | 1 | 2 | | 2 | | |
| GALL BLADDER & BILE DUCTS | 156 | | | | | 1 | 1 | 1 | 1 | | 1 | 4 | 2 | 2 | 1 | 1 | 3 | | | 4 | | | |
| PANCREAS | 157 | 2 | 1 | | 1 | 1 | 2 | 2 | 4 | 6 | 2 | 6 | 3 | 4 | 2 | 5 | 6 | 2 | 4 | 2 | 8 | | |
| PERITONEUM & RETROPERITONEAL TISS | 158 | | | | | | | | | | | | | | 1 | | | 1 | | | | | |
| UNSPEC DIGESTIVE ORGANS | 159 | | | | | | | | | | | | | | | | | | | 1 | | | |
| RESPIRATORY SYSTEM | 160-165 | 8 | 2 | 7 | 2 | 11 | 2 | 30 | 11 | 35 | 16 | 41 | 9 | 34 | 11 | 28 | 9 | 16 | 9 | 9 | 4 | | |
| NOSE,NASAL CAV, MIDDLE EAR & ACCES | 160 | | | | | | | | | | | | 1 | 1 | | | | | | | | | |
| LARYNX | 161 | | | | | | | | 1 | 1 | | 1 | 1 | | | 1 | 1 | 2 | | | | | |
| TRACHEA, BRONCHUS & LUNG | 162 | 8 | 2 | 7 | 2 | 11 | 2 | 30 | 10 | 34 | 16 | 40 | 7 | 33 | 11 | 26 | 8 | 14 | 9 | 8 | 4 | | |
| OTHER AND UNSPECIFIED ORGANS | 163-165 | | | | | | | | | | | | | | | 1 | | | | 1 | | | |
| BONE, CONN TISSUE, SKIN BREAST | 170-175 | | 4 | | 5 | | 9 | 1 | 9 | 3 | 14 | 1 | 15 | 4 | 6 | | 9 | 2 | 5 | | 10 | | |
| BONE | 170 | | | | | | | | | | 1 | | | 1 | | | | | 1 | | 1 | | |
| CONNECTIVE & OTHER SOFT TISSUE | 171 | | | | | | | | | | | | | | | | 1 | | 1 | | | | |
| MELANOMA OF SKIN | 172 | | | | | | | | | 3 | | | | 2 | | | | 1 | | | | | |
| NEOPLASM OF SKIN | 173 | | | | | | | 1 | | | | 1 | | 1 | | | | 1 | | | | | |
| BREAST | 174-175 | | 4 | | 5 | | 9 | | 9 | | 13 | | 15 | | 6 | | 8 | | 3 | | 9 | | |
| GENITOURINARY ORGANS | 179-189 | 2 | 3 | 3 | 3 | 5 | 7 | 1 | 8 | 7 | 9 | 10 | | 16 | 2 | 20 | 3 | 16 | 4 | 14 | 6 | | |
| CERVIC UTERI | 180 | | | | | | | | 4 | | 1 | | | | 1 | | | | | | 2 | | |
| PLACENTA | 181 | | | | | | | | | | | | | | | | | | | | | | |
| OTHER MALIG NEOPLASM OF UTERUS | 179,182 | | 2 | | 2 | | 1 | | 2 | | 3 | | | | | | 1 | | 1 | | | | |
| OVARY, FALLOP TUBE & BROAD LIGAM | 183 | | 1 | | 1 | | 5 | | 2 | | 5 | | | | | | 1 | | 2 | | 1 | | |
| OTHER & UNSPEC FEMALE GENITAL ORG | 184 | | | | | | | | | | | | | | 1 | | | | | | | | |
| PROSTATE | 185 | | | | | | | 1 | | 5 | | 8 | | 9 | | 15 | | 11 | | 11 | | | |
| TESTIS | 186 | | | | | | | | | | | | | | | | | | | | | | |
| OTHER & UNSPEC MALE GENITAL ORGAN | 187 | | | | | | | | | | | | | | | | | | | | | | |
| BLADDER | 188 | | | | | 1 | | | | 1 | | 1 | | 4 | | 3 | 1 | 2 | 1 | | 2 | | |
| OTHER & UNSPEC URINARY ORGANS | 189 | 2 | | 3 | | 4 | 1 | | | 1 | | 1 | | 3 | | 2 | | 3 | | 3 | 1 | | |
| OTHER AND UNSPECIFIED SITES | 190-199 | | 2 | 2 | 6 | 4 | 5 | 5 | 6 | 12 | 7 | 13 | 9 | 8 | 3 | 7 | 11 | 6 | 7 | 2 | 10 | | |
| EYE | 190 | | | | | | | | | | | | | | | | | | | | | | |
| BRAIN | 191 | | 1 | 1 | | 1 | 2 | 2 | 2 | 4 | 2 | 2 | | 1 | | 1 | 1 | | 2 | | 1 | | |
| OTHER PARTS OF NERVOUS SYSTEM | 192 | | | | | | | | | | | | | | | | | | | | | | |
| THYROID GLAND | 193 | | | | | | | | | 1 | 2 | | 1 | | | | 2 | | | | | | |
| OTHER ENDOCRINE GLANDS | 194 | | | | 1 | | | | | | | | | | | | | | | | | | |
| ILL-DEFINED SITES | 195 | | | | | | | | | | | | | | | | | | | | | | |
| SECONDARY & UNSPECIFIED MALIGNANT NEOPLASM OF LYMPH NODES | 196 | | | | | | 1 | 1 | 1 | | | 2 | 1 | 1 | | 1 | 2 | 2 | | 1 | | | |
| SECONDARY MALIGNANT NEOPLASM OF RESPIRATORY & DIGESTIVE SYSTEMS | 197 | | | | | | | | | | | | | | | | 1 | | | | | | |
| OTHER SECONDARY MALIG NEOPLASM | 198 | | | | | | | | | | | | | | | | 1 | | | | | | |
| WITHOUT SPECIFICATION OF SITE | 199 | | 1 | 1 | 5 | 3 | 2 | 2 | 3 | 7 | 3 | 9 | 7 | 6 | 3 | 5 | 4 | 4 | 5 | 1 | 9 | | |
| LYMPHATIC & HEMATOPOIETIC TISS | 200-208 | 3 | 1 | 1 | 2 | 7 | 3 | 4 | 5 | 6 | 6 | 10 | 5 | 7 | 2 | 5 | 2 | 1 | 4 | 2 | 4 | | |
| LYMPHOSARCOMA & RETIC-CELL SARCO | 200 | 1 | | 1 | | 1 | | | | 1 | 2 | | 1 | 2 | | | | | | | | | |
| HODGKINS DISEASE | 201 | | | | | 1 | | | | | | | | | | | | | | | | | |
| OTHER NEOPLASMS OF LYMPHOID TISS | 202 | 1 | | | | 2 | 1 | 2 | 2 | 2 | 3 | 3 | 2 | 4 | 1 | | 1 | 1 | 2 | 1 | 2 | | |
| MULTIPLE MYELOMA | 203 | | | | | 1 | | | 1 | 2 | 1 | 1 | | 1 | | 3 | 1 | | 1 | | | | |
| LYMPHATIC LEUKEMIA | 204 | | | | | | | | | | | 1 | | | | | | | | | 1 | | |
| MYELOID LEUKEMIA | 205 | 1 | 1 | | 2 | | 2 | 1 | 1 | | | 2 | 2 | | 1 | | | | 1 | 1 | 1 | | |
| MONOCYTIC LEUKEMIA | 206 | | | | | | | | | | | | | | | | | | | | | | |
| OTHER AND UNSPECIFIED LEUKEMIA | 207-208 | | | | | 2 | | 1 | 1 | 1 | | 3 | | | | 2 | | | | | | | |
| TOTAL MALIGNANT NEOPLASMS | 140-208 | 16 | 15 | 22 | 22 | 53 | 41 | 75 | 56 | 105 | 69 | 121 | 56 | 115 | 46 | 100 | 64 | 69 | 48 | 50 | 56 | | |

## TABLE 33

## TOTAL RECORDED DEATHS BY ISLAND OF OCCURRENCE, BY METHOD OF DISPOSITION AND AUTOPSY PERFORMED
## STATE OF HAWAI 1981

| ISLAND OF OCCURRENCE | METHOD OF DISPOSITION | | | | | | | | AUTOPSY PERFORMED | | | | | | PRESUMPTIVE DEATHS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | PRIV. PHY. | | MED.EX./COR.PHY. | | OTHER | | |
| | TOTAL | BURIAL | CREMATION | REMOVAL | ENTOMBMENT | EDUC. PURPOSE | OTHER | UNK. | TOTAL | YES | TOTAL | YES | TOTAL | YES | |
| TOTAL | 5269 | 2284 | 2342 | 613 | 23 | | | 7 | 4213 | 550 | 1052 | 785 | 1 | | 3 |
| HAWAII | 588 | 292 | 245 | 46 | 4 | | | 1 | 445 | 66 | 141 | 131 | | | 2 |
| OAHU | 4073 | 1724 | 1831 | 494 | 19 | | | 5 | 3328 | 456 | 745 | 505 | | | |
| KALAWAO COUNTY | 3 | 3 | | | | | | | 3 | | | | | | |
| KAUAI | 217 | 92 | 100 | 25 | | | | | 172 | 18 | 45 | 43 | | | |
| NIIHAU | | | | | | | | | | | | | | | |
| LANAI | 5 | 3 | | 2 | | | | | 4 | | 1 | 1 | | | |
| MAUI | 344 | 149 | 159 | 35 | | | | 1 | 243 | 10 | 99 | 93 | 1 | | 1 |
| MOLOKAI (EXCL OF KALAWAO) | 28 | 20 | 5 | 3 | | | | | 18 | | 10 | 7 | | | |
| UNKNOWN | 11 | 1 | 2 | 8 | | | | | | | 11 | 5 | | | |

FIGURE 3
INFANT DEATHS IN HAWAII 1900-1981

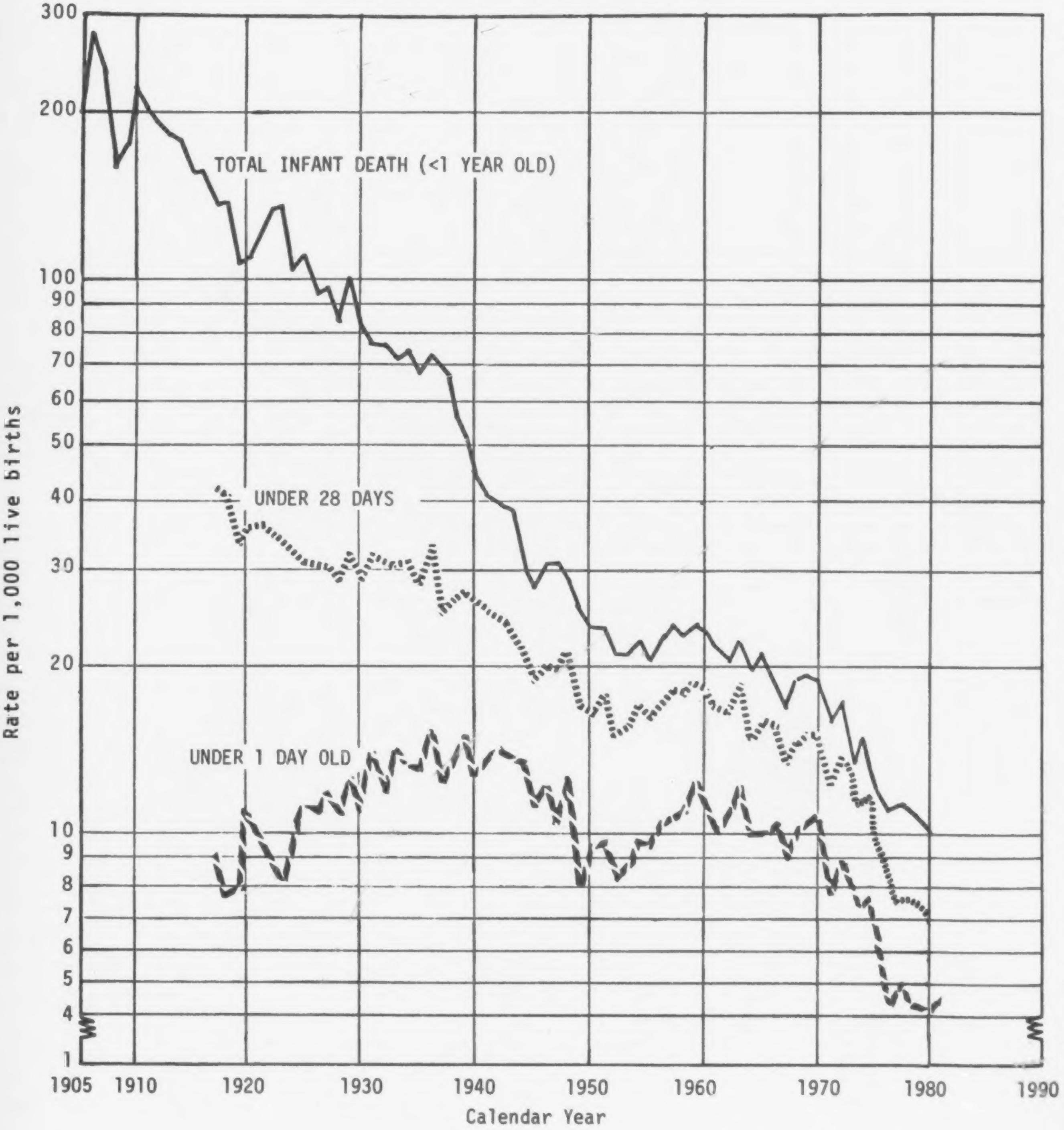


TABLE 34

INFANT DEATHS BY PLACE OF OCCURRENCE REALLOCATED TO USUAL RESIDENCE BY RACE OF CHILD
STATE OF HAWAII, 1981

| GEOGRAPHIC AREA | | TOTAL BY PLACE OF OCCURRENCE | | TOTAL BY PLACE OF RESIDENCE | | PERINATAL MORTALITY | | RACE OF CHILD | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NO. | RATE a/ | NO. | RATE a/ | NO. | RATE b/ | CAUCASIAN | HAWN | PART HAWN | CHINESE | FILIPINO | JAPANESE | PUERTO RICAN | KOREAN | SAMOAN | NEGRO | PORTUGUESE | VIETNAMESE | OTHER RACES | UNKN |
| TOTAL RECORDED | | 191 | 10.5 | 191 | 10.5 | | | 38 | 1 | 69 | 6 | 24 | 24 | | 3 | 5 | 7 | 1 | | 11 | 2 |
| STATE OF HAWAII | NUMBER | 191 | 10.5 | 178 | 9.8 | 307 | 16.7 | 36 | 1 | 69 | 5 | 20 | 24 | | 3 | 3 | 5 | 1 | | 9 | 2 |
| | RATE* | 10.5 | | 9.8 | | | | 9.5 | 21.7 | 12.1 | 6.9 | 7.0 | 9.5 | | 8.7 | 5.9 | 7.7 | 5.2 | | 15.3 | 500.0 |
| COUNTY OF HAWAII | | 11 | 5.7 | 20 | 10.1 | 28 | 14.0 | 4 | | 12 | | 2 | 1 | | | | 1 | | | | |
| CITY OF HILO | | 7 | 5.8 | 6 | 8.7 | 7 | 10.0 | | | 5 | | | 1 | | | | | | | | |
| BALANCE OF CTY | | 4 | 5.4 | 14 | 10.9 | 21 | 16.2 | 4 | | 7 | | 2 | | | | | 1 | | | | |
| COUNTY OF HONOLULU | | 172 | 12.2 | 130 | 9.3 | 243 | 17.2 | 26 | 1 | 42 | 5 | 15 | 21 | | 3 | 3 | 4 | 1 | | 7 | 2 |
| CITY OF HONOLULU | | 151 | 11.9 | 43 | 7.8 | 90 | 16.2 | 9 | | 11 | | 7 | 8 | | 1 | 1 | 1 | | | 4 | 1 |
| BALANCE OF CTY | | 21 | 14.0 | 87 | 10.3 | 153 | 17.9 | 17 | 1 | 31 | 5 | 8 | 13 | | 2 | 2 | 3 | 1 | | 3 | 1 |
| COUNTY OF KALAWAO | | | | | | | | | | | | | | | | | | | | | |
| COUNTY OF KAUAI | | 2 | 2.7 | 8 | 10.5 | 9 | 11.8 | | | 3 | | 2 | 2 | | | | | | | 1 | |
| ISLAND OF KAUAI | | 2 | 2.7 | 8 | 10.5 | 9 | 11.8 | | | 3 | | 2 | 2 | | | | | | | 1 | |
| ISLAND OF NIIHAU | | | | | | | | | | | | | | | | | | | | | |
| COUNTY OF MAUI | | 6 | 4.4 | 20 | 13.4 | 27 | 17.9 | 6 | | 12 | | 1 | | | | | | | | 1 | |
| ISLAND OF LANAI | | | | | | | | | | | | | | | | | | | | | |
| ISLAND OF MAUI | | 5 | 3.9 | 16 | 12.1 | 23 | 17.3 | 6 | | 8 | | 1 | | | | | | | | 1 | |
| ISLAND OF MOLOKAI (EXCL. KALAWAO) | | 1 | 11.0 | 4 | 26.3 | 4 | 26.0 | | | 4 | | | | | | | | | | | |
| NON-RESIDENT | | | | 13 | 250.0 | | | 2 | | | 1 | 4 | | | | 2 | 2 | | | 2 | |
| UNKNOWN | | | | | | | | | | | | | | | | | | | | | |

a/NUMBER OF INFANT DEATHS PER 1,000 LIVE BIRTHS
b/NUMBER OF DEATHS PER 1,000 LIVE BIRTHS PLUS FETAL DEATHS OF 20 WEEKS OR MORE GESTATION

TABLE 35

RESIDENT INFANT DEATHS BY AGE AND RACE OF MOTHER
STATE OF HAWAII, 1981

| AGE OF MOTHER | | ALL RACES | | RACE OF MOTHER | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NO. | RATE* | CAUCASIAN | HAWN | PART HAWN | CHINESE | FILIPINO | JAPANESE | PUERTO RICAN | KOREAN | SAMOAN | NEGRO | PORTUGUESE | VIETNAMESE | OTHER RACES | UNKN |
| ALL AGES | NUMBER | 178 | 9.8 | 45 | 2 | 59 | 5 | 20 | 18 | | 5 | 2 | 5 | 3 | | 6 | 8 |
| | RATE* | 9.8 | | 8.8 | 14.6 | 14.7 | 7.1 | 6.4 | 6.8 | | 12.2 | 4.1 | 10.5 | 12.9 | | 10.3 | |
| UNDER 15 | | | | | | | | | | | | | | | | | |
| 15 - 17 | | 4 | 7.2 | 1 | | 2 | | 1 | | | | | | | | | |
| 18 - 19 | | 20 | 13.4 | 2 | 1 | 8 | | 5 | | | | 1 | 1 | | | 1 | 1 |
| 20 - 24 | | 67 | 11.5 | 15 | 1 | 32 | 1 | 6 | 5 | | 2 | | 2 | 2 | | 1 | |
| 25 - 29 | | 40 | 7.0 | 12 | | 12 | 1 | 4 | 4 | | 1 | 1 | 1 | | | 4 | |
| 30 - 34 | | 28 | 8.0 | 8 | | 3 | 2 | 3 | 9 | | 1 | | 1 | 1 | | | |
| 35 - 39 | | 9 | 9.1 | 5 | | 2 | 1 | | | | 1 | | | | | | |
| 40 - 44 | | 3 | 23.3 | 2 | | | | 1 | | | | | | | | | |
| 45 & OVER | | | | | | | | | | | | | | | | | |
| UNKNOWN | | 7 | | | | | | | | | | | | | | | 7 |

* NUMBER OF INFANT DEATHS PER 1.

## TABLE 36

### RESIDENT INFANT DEATHS BY RACE OF MOTHER AND MONTH OF FIRST PRENATAL VISIT
### STATE OF HAWAII, 1981

| RACE OF MOTHER | | NO. | RATE* | MONTH OF FIRST PRENATAL VISIT | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 1ST | 2ND | 3RD | 4TH | 5TH | 6TH | 7TH | 8TH | 9TH | NONE | UNKNOWN |
| ALL RACES | NUMBER | 178 | 9.8 | 22 | 60 | 42 | 15 | 6 | 10 | 2 | 1 | | 8 | 12 |
| | RATE* | 9.8 | | 8.5 | 8.6 | 9.6 | 8.7 | 5.7 | 17.0 | 5.2 | 3.9 | | 80.8 | |
| CAUCASIAN | | 45 | 8.8 | 9 | 20 | 8 | 2 | | 3 | 1 | | | 2 | |
| HAWAIIAN | | 2 | 14.6 | | 1 | 1 | | | | | | | | |
| PART HAWAIIAN | | 59 | 14.7 | 4 | 19 | 20 | 7 | 4 | 1 | 1 | | | 3 | |
| CHINESE | | 5 | 7.1 | 1 | 1 | 2 | | | 1 | | | | | |
| FILIPINO | | 20 | 6.4 | 3 | 5 | 7 | 3 | | 1 | | | | 1 | |
| JAPANESE | | 18 | 6.8 | 3 | 8 | 1 | 1 | 1 | 1 | | | | | 3 |
| PUERTO RICAN | | | | | | | | | | | | | | |
| KOREAN | | 5 | 12.2 | 1 | 1 | | 1 | | 2 | | | | | |
| SAMOAN | | 2 | 4.1 | | | | 1 | 1 | | | | | | |
| NEGRO | | 5 | 10.5 | | 1 | 2 | | | | | | | 1 | 1 |
| PORTUGUESE | | 3 | 12.9 | | 3 | | | | | | | | | |
| VIETNAMESE | | | | | | | | | | | | | | |
| OTHER RACES | | 6 | 10.3 | 1 | 1 | 1 | | | 1 | | 1 | | 1 | |
| UNKNOWN | | 8 | | | | | | | | | | | | 8 |

* NUMBER OF INFANT DEATHS PER 1,000 LIVE BIRTHS

## TABLE 37

### RESIDENT INFANT MORTALITY BY RACE OF CHILD AND AGE, LOW BIRTH WEIGHT INFANT DEATHS
### STATE OF HAWAII, 1981

| RACE OF CHILD | NUMBER OF INFANT DEATHS AGE AT DEATH (DAYS) | | | | | INFANT DEATH RATE[a] | | | | | LOW BIRTH WEIGHT INFANTS WHO DIED[b] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | TOTAL | UNDER 1 DAY | 1-6 | 7-27 | 28 DAYS TO 11 MOS | TOTAL | UNDER 1 DAY | UNDER 1 WEEK | UNDER 28 DAYS | 28 DAYS TO 11 MOS | NO. | RATE[c] |
| ALL RACES | 178 | 81 | 27 | 24 | 46 | 9.8 | 4.5 | 5.9 | 7.3 | 2.5 | 99 | 5.4 |
| CAUCASIAN | 36 | 20 | 7 | 3 | 6 | 9.5 | 5.3 | 7.2 | 7.9 | 1.6 | 22 | 5.8 |
| HAWAIIAN | 1 | | | | 1 | 21.7 | 0.0 | 0.0 | 0.0 | 21.7 | | |
| PART HAWAIIAN | 69 | 31 | 7 | 10 | 21 | 12.1 | 5.4 | 6.7 | 8.4 | 3.7 | 40 | 7.0 |
| CHINESE | 5 | 3 | 1 | | 1 | 6.9 | 4.1 | 5.5 | 5.5 | 1.4 | 2 | 2.8 |
| FILIPINO | 20 | 9 | 5 | 2 | 4 | 7.0 | 3.2 | 4.9 | 5.6 | 2.8 | 12 | 4.2 |
| JAPANESE | 24 | 9 | 5 | 2 | 8 | 9.5 | 3.6 | 5.5 | 6.3 | 3.2 | 10 | 4.0 |
| PUERTO RICAN | | | | | | | | | | | | |
| KOREAN | 3 | 2 | 1 | | | 8.7 | 5.8 | 8.6 | 8.7 | 0.0 | 1 | 2.9 |
| SAMOAN | 3 | 1 | | 1 | 1 | 5.9 | 2.0 | 2.0 | 3.9 | 2.0 | 1 | 2.0 |
| NEGRO | 5 | 3 | | 1 | 1 | 7.7 | 4.6 | 4.6 | 6.1 | 1.5 | 5 | 7.7 |
| PORTUGUESE | 1 | | 1 | | | 5.2 | 0.0 | 5.2 | 5.2 | 0.0 | | |
| VIETNAMESE | | | | | | | | | | | | |
| OTHER RACES | 9 | 2 | | 5 | 2 | 15.3 | 3.4 | 3.4 | 11.9 | 3.4 | 5 | 8.5 |
| UNKNOWN | 2 | 1 | | | 1 | 500.0 | 250.0 | 250.0 | 250.0 | 250.0 | 1 | 250.0 |

[a] NUMBER OF INFANT DEATHS PER 1,000 LIVE BIRTHS
[b] INFANTS OF 2500 GRAMS (5 LBS. 8 OZ.) OR LESS ARE CONSIDERED LOW BIRTH WEIGHT
[c] NUMBER OF DEATHS PER 1,000 LOW BIRTH WEIGHT LIVE BIRTHS

## TABLE 38

### RESIDENT INFANT MORTALITY BY SELECTED CAUSES BY BIRTH WEIGHT, SEX AND AGE, NEONATAL DEATHS
STATE OF HAWAII, 1981

| CAUSE OF DEATH a/ | TOTAL | | | BIRTH WEIGHT | | | SEX | | | AGE AT DEATH | | | | NEONATAL DEATH c/ | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NO. | RATE b/ | PER CENT | 2500 GMS UNDER | OVER 2500 GMS | UNK | MALE | FEMALE | UNK | UNDER 1 DAY | 1-6 DAYS | 7-27 DAYS | 28 DAYS TO 11 MOS | NO. | RATE b/ |
| ALL CAUSES | 178 | | 100.0 | 99 | 65 | 14 | 97 | 81 | | 81 | 27 | 24 | 46 | 132 | 7.3 |
| INTESTINAL INFECTIVE DISEASES (001-009) | 1 | | .6 | | 1 | | | 1 | | | | | 1 | | |
| OTHER INFECTIVE DISEASES (010-139) | 1 | | .6 | | 1 | | | 1 | | | | | 1 | | |
| INFECTIONS OF NEWBORN (771) | 2 | | 1.1 | 1 | 1 | | | 2 | | 1 | 1 | | | 2 | .1 |
| MENINGITIS (320-322) | 1 | | .6 | 1 | | | 1 | | | | | 1 | | 1 | .1 |
| PNEUMONIA (480-486,7700) | 1 | | .6 | 1 | | | 1 | | | 1 | | | | 1 | .1 |
| CONGENITAL ANOMALIES OF CIRCULATORY SYST (745-747) | 23 | | 12.9 | 4 | 17 | 2 | 15 | 8 | | 1 | 6 | 8 | 8 | 15 | .8 |
| OTHER CONG ANOMAL (740-759) | 33 | | 18.5 | 13 | 15 | 5 | 15 | 18 | | 17 | 7 | 2 | 7 | 26 | 1.4 |
| MATERNAL CONDITIONS UNRELATED TO PREGNANCY (760) | | | | | | | | | | | | | | | |
| COMPLICATIONS OF PREGNANCY (761) | 12 | | 6.7 | 11 | 1 | | 4 | 8 | | 12 | | | | 12 | .7 |
| COMPLICATIONS OF PLACENTA CORD & MEMBRANE (762) | 4 | | 2.2 | 4 | | | 3 | 1 | | 4 | | | | 4 | .2 |
| OTHER COMPLICATIONS OF LABOR AND DELIVERY (763) | | | | | | | | | | | | | | | |
| BIRTH INJURY (767) | 1 | | .6 | 1 | | | | 1 | | 1 | | | | 1 | .1 |
| HEMOLYTIC DISEASE OF NEWBORN (773) | | | | | | | | | | | | | | | |
| RESPIRATORY DISTRESS SYNDROME (769) | 13 | | 7.3 | 12 | | 1 | 8 | 5 | | 5 | 5 | 2 | 1 | 12 | .7 |
| ASPHYXIA & HYPOXIA (768) | 6 | | 3.4 | 5 | 1 | | 3 | 3 | | 2 | 3 | 1 | | 6 | .3 |
| IMMATURITY (765) | 23 | | 12.9 | 22 | 1 | | 15 | 8 | | 22 | 1 | | | 23 | 1.3 |
| OTHER PERINATAL (760-779) | 24 | | 13.5 | 17 | 3 | 4 | 13 | 11 | | 13 | 4 | 5 | 2 | 22 | 1.2 |
| SUDDEN INFANT DEATH SYNDROME (7980) | 21 | | 11.8 | 3 | 17 | 1 | 13 | 8 | | | | 3 | 18 | 3 | .2 |
| ACCIDENTS (800-949) | 2 | | 1.1 | | 1 | 1 | 1 | 1 | | | | | 2 | | |
| OTHER EXTERNAL CONDITIONS (950-959) | 1 | | .6 | | 1 | | 1 | | | | | | 1 | | |
| ALL OTHER CONDITIONS-RESIDUAL | 9 | | 5.1 | 4 | 5 | | 4 | 5 | | 2 | | 2 | 5 | 4 | .2 |

a/ 9TH ICD
b/ NUMBER OF INFANT DEATHS PER 1,000 LIVE BIRTHS
c/ DEATHS UNDER 28 DAYS OLD

## TABLE 39

### STANDARD FETAL DEATHS BY PLACE OF OCCURRENCE REALLOCATED TO USUAL RESIDENCE OF MOTHER AND GESTATION PERIOD
STATE OF HAWAII, 1981

| GEOGRAPHIC AREA | | TOTAL BY PLACE OF OCCURRENCE | | TOTAL BY PLACE OF RESIDENCE | | | GESTATION PERIOD IN WEEKS | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NO. | RATIO a/ | NO. | RATIO a/ | RATE b/ | UNDER 12 | 12 | 13 | 14 | 15 | 16-19 | 20-27 | 28-35 | 36-39 | 40 & OVER | UNKN |
| TOTAL RECORDED | | 1,724 | 94.6 | 1,724 | 94.6 | 86.4 | 1,116 | 179 | 47 | 74 | 31 | 78 | 100 | 33 | 20 | 15 | 31 |
| STATE OF HAWAII | NUMBER | 1,724 | 94.6 | 1,661 | 91.4 | 83.7 | 1,073 | 170 | 45 | 70 | 31 | 74 | 99 | 33 | 20 | 15 | 31 |
| | PERCENT | | | 100.0 | | | 64.6 | 10.2 | 2.7 | 4.2 | 1.9 | 4.5 | 6.0 | 2.0 | 1.2 | 0.9 | 1.9 |
| COUNTY OF HAWAII | | 147 | 75.6 | 151 | 76.3 | 70.9 | 104 | 11 | 3 | 6 | 2 | 7 | 9 | 1 | 2 | 2 | 4 |
| CITY OF HILO | | 140 | 116.8 | 78 | 112.9 | 101.4 | 54 | 5 | 3 | 2 | 1 | 6 | 4 | | 2 | 1 | |
| BALANCE OF COUNTY | | 7 | 9.4 | 73 | 56.7 | 53.7 | 50 | 6 | | 4 | 1 | 1 | 5 | 1 | | 1 | 4 |
| COUNTY OF HONOLULU | | 1,384 | 97.8 | 1,326 | 95.1 | 86.8 | 837 | 143 | 39 | 58 | 27 | 62 | 81 | 26 | 14 | 13 | 26 |
| CITY OF HONOLULU | | 1,241 | 98.0 | 518 | 94.1 | 86.0 | 324 | 54 | 13 | 22 | 13 | 26 | 36 | 13 | 7 | 3 | 7 |
| BALANCE OF COUNTY | | 143 | 95.5 | 808 | 95.7 | 87.3 | 513 | 89 | 26 | 36 | 14 | 36 | 45 | 13 | 7 | 10 | 19 |
| COUNTY OF KALAWAO | | | | | | | | | | | | | | | | | |
| COUNTY OF KAUAI | | 52 | 69.1 | 50 | 65.8 | 61.7 | 35 | 5 | 1 | 3 | | 3 | 2 | 1 | | | |
| ISLAND OF KAUAI | | 52 | 69.1 | 50 | 65.9 | 61.8 | 35 | 5 | 1 | 3 | | 3 | 2 | 1 | | | |
| ISLAND OF NIIHAU | | | | | | | | | | | | | | | | | |
| COUNTY OF MAUI | | 141 | 102.2 | 134 | 90.0 | 82.6 | 97 | 11 | 2 | 3 | 2 | 2 | 7 | 5 | 4 | | 1 |
| ISLAND OF LANAI | | 1 | 200.0 | 3 | 157.9 | 136.4 | 3 | | | | | | | | | | |
| ISLAND OF MAUI | | 139 | 108.3 | 127 | 96.4 | 87.9 | 93 | 10 | 2 | 3 | 2 | 2 | 7 | 4 | 3 | | 1 |
| ISLAND OF MOLOKAI | | 1 | 11.0 | 4 | 26.3 | 25.6 | 1 | 1 | | | | | | 1 | 1 | | |
| NON-RESIDENT | | | | 62 | 1192.3 | 543.9 | 43 | 9 | 1 | 4 | | 4 | 1 | | | | |
| UNKNOWN | | | | 1 | 250.0 | 200.0 | | | 1 | | | | | | | | |

a/ NUMBER OF FETAL DEATHS PER 1,000 LIVE BIRTHS
b/ NUMBER OF FETAL DEATHS PER 1,000 DELIVERIES (LIVE BIRTHS AND STANDARD FETAL DEATHS)

## TABLE 40

### STANDARD FETAL DEATHS BY PLACE OF OCCURRENCE REALLOCATED TO USUAL RESIDENCE OF MOTHER BY RACE
### STATE OF HAWAII, 1981

| GEOGRAPHIC AREA | | TOTAL BY PLACE OF OCCURRENCE | | TOTAL BY PLACE OF RESIDENCE | | | RACE OF FETUS | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NO. | RATIO a/ | NO. | RATIO a/ | RATE b/ | CAUCASIAN | HAWN | PART HAWN | CHINESE | FILIPINO | JAPANESE | PUERTO RICAN | KOREAN | SAMOAN | NEGRO | PORTUGESE | VIETNAMESE | OTHER | UNKN |
| TOTAL RECORDED | | 1724 | 94.6 | 1724 | 94.6 | 86.4 | 653 | 14 | 284 | 58 | 230 | 225 | 25 | 33 | 40 | 74 | 16 | 2 | 25 | 45 |
| STATE OF HAWAII | NUMBER | 1724 | 94.6 | 1661 | 91.4 | 83.7 | 600 | 14 | 284 | 58 | 229 | 224 | 25 | 33 | 39 | 72 | 15 | 2 | 24 | 42 |
| | RATIO a/ | 94.6 | | 91.4 | | | 159.0 | 304.3 | 49.9 | 80.0 | 80.2 | 88.7 | 148.8 | 96.2 | 76.2 | 110.4 | 77.3 | 20.6 | 40.9 | |
| | RATE b/ | 86.4 | | 83.7 | | | 137.2 | 233.3 | 47.5 | 74.1 | 74.2 | 88.7 | 129.5 | 87.8 | 70.8 | 99.4 | 71.8 | 20.2 | 39.3 | |
| COUNTY OF HAWAII | | 147 | 75.6 | 151 | 76.3 | 70.9 | 39 | 1 | 53 | 2 | 18 | 23 | 3 | 1 | 1 | 2 | 5 | | 3 | |
| CITY OF HILO | | 140 | 116.8 | 78 | 112.9 | 101.4 | 14 | 1 | 27 | 2 | 8 | 16 | 1 | 1 | 1 | 1 | 4 | | 2 | |
| BALANCE OF COUNTY | | 7 | 9.4 | 73 | 56.7 | 53.7 | 25 | | 26 | | 10 | 7 | 2 | | | 1 | 1 | | 1 | |
| COUNTY OF HONOLULU | | 1384 | 97.8 | 1326 | 95.1 | 86.8 | 502 | 11 | 190 | 52 | 177 | 172 | 18 | 30 | 35 | 73 | 7 | 2 | 20 | 40 |
| CITY OF HONOLULU | | 1241 | 98.0 | 518 | 94.1 | 86.0 | 158 | 3 | 68 | 36 | 75 | 94 | 7 | 18 | 18 | 18 | 1 | 2 | 12 | 8 |
| BALANCE OF COUNTY | | 143 | 95.5 | 808 | 95.7 | 87.3 | 344 | 8 | 122 | 16 | 102 | 78 | 11 | 12 | 17 | 52 | 6 | | 8 | 32 |
| COUNTY OF KALAWAO | | | | | | | | | | | | | | | | | | | | |
| COUNTY OF KAUAI | | 52 | 69.1 | 50 | 65.8 | 61.7 | 17 | | 12 | 1 | 15 | 5 | | | | | | | | |
| ISLAND OF KAUAI | | 52 | 69.1 | 50 | 65.9 | 61.8 | 17 | | 12 | 1 | 15 | 5 | | | | | | | | |
| ISLAND OF NIIHAU | | | | | | | | | | | | | | | | | | | | |
| COUNTY OF MAUI | | 141 | 102.2 | 134 | 90.0 | 82.6 | 42 | 2 | 29 | 3 | 19 | 24 | 4 | 2 | 3 | | 3 | | 1 | 2 |
| ISLAND OF LANAI | | 1 | 200.0 | 3 | 157.9 | 136.4 | 2 | | | | | 1 | | | | | | | | |
| ISLAND OF MAUI | | 139 | 108.3 | 127 | 96.4 | 87.9 | 40 | 2 | 27 | 3 | 17 | 23 | 4 | 2 | 3 | | 3 | | 1 | 2 |
| ISLAND OF MOLOKAI | | 1 | 11.0 | 4 | 26.3 | 25.6 | | | 2 | | 2 | | | | | | | | | |
| NON-RESIDENT | | | | 62 | 1192.3 | 543.9 | 53 | | | | 1 | 1 | | | 1 | 2 | 1 | | 1 | 2 |
| UNKNOWN | | | | 1 | 250.0 | 200.0 | | | | | | | | | | | | | | 1 |

a/ NUMBER OF FETAL DEATHS PER 1,000 LIVE BIRTHS
b/ NUMBER OF FETAL DEATHS PER 1,000 DELIVERIES (LIVE BIRTHS AND STANDARD FETAL DEATHS)

## TABLE 41

### STANDARD FETAL DEATHS BY CAUSE AND GESTATION PERIOD
### STATE OF HAWAII, 1981

| CAUSE | CODE* | TOTAL | | GESTATION PERIOD IN WEEKS | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NUMBER | PERCENT | UNDER 12 | 12 | 13 | 14 | 15 | 16-19 | 20-27 | 28-35 | 36-39 | 40 & OVER | UNKN |
| ALL CAUSES | ALL | 1,724 | 100.0 | 1,116 | 179 | 47 | 74 | 31 | 78 | 100 | 33 | 20 | 15 | 31 |
| SPONTANEOUS ABORTION | 7618 | 196 | 11.4 | 133 | 16 | 9 | 9 | 2 | 9 | 4 | | | | 14 |
| ALL OTHER ABORTIONS | 7796 | 83 | 4.8 | 50 | 9 | 1 | 9 | 3 | 6 | 5 | | | | |
| CONGENITAL ANOMALIES | 740-759 | 6 | .3 | | | | | | | 5 | 1 | | | |
| CHRONIC CIRCULATORY, RESPIRATORY, AND GENITOURINARY DISEASES IN THE MOTHER | 7600,7601,7603 | 4 | .2 | | | | | | | 1 | 1 | 1 | | 1 |
| MATERNAL CONDITIONS UNRELATED TO PREGNANCY | 7602,7604-7609 | 14 | .8 | 5 | 1 | | 1 | | 3 | 1 | 1 | | 1 | 1 |
| COMPLICATIONS OF PREGNANCY AND CHILDBIRTH | 7610-7617,7619 | 169 | 9.8 | 139 | 1 | 3 | 5 | 3 | 4 | 10 | | 1 | | 3 |
| DIFFICULT LABOR WITH OR WITHOUT MENTION OF BIRTH INJURY | 763 | 2 | .1 | 1 | | 1 | | | | | | | | |
| COMPLICATIONS OF PLACENTA, CORD AND MEMBRANES | 762 | 72 | 4.2 | 4 | 2 | | 2 | 2 | 8 | 26 | 11 | 11 | 5 | 1 |
| BIRTH INJURY WITHOUT MENTION OF CAUSE | 767 | | | | | | | | | | | | | |
| HEMOLYTIC DISEASE OF NEWBORN | 773 | | | | | | | | | | | | | |
| OTHER CONDITIONS OF FETUS | 764-766,768-770 | 14 | .8 | 1 | | | | | 1 | 6 | 4 | 1 | 1 | |
| UNKNOWN | 7799 | 1,156 | 67.1 | 781 | 150 | 32 | 48 | 21 | 47 | 40 | 12 | 6 | 8 | 11 |
| ALL OTHER CAUSES | RESIDUAL | 8 | .5 | 2 | | 1 | | | | 2 | 3 | | | |

## TABLE 42

### STANDARD FETAL DEATHS BY AGE OF MOTHER AND GESTATION PERIOD
### STATE OF HAWAII, 1981

| AGE OF MOTHER IN YEARS | TOTAL |  |  | GESTATION PERIOD IN WEEKS: NUMBER |  |  |  |  |  |  |  |  |  |  | GESTATION PERIOD IN WEEKS: PERCENT |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | NO. | RATIO* | PER-CENT | <12 | 12 | 13 | 14 | 15 | 16 TO 19 | 20 TO 27 | 28 TO 35 | 36 TO 39 | 40 & OVER | UNKN | UNDER 12 | UNDER 20 | UNDER 28 | UNDER 36 | 36 TO 39 | 40 & OVER | UNKN |
| ALL AGES | 1.724 |  | 100.0 | 1.116 | 179 | 47 | 74 | 31 | 78 | 100 | 33 | 20 | 15 | 31 | 64.7 | 88.5 | 94.3 | 96.2 | 1.2 | .9 | 1.8 |
| UNDER 15 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15 - 17 | 48 |  | 2.8 | 30 | 3 | 3 | 1 | 2 | 2 | 5 | 1 | 1 |  |  | 62.5 | 85.4 | 95.8 | 97.9 | 2.1 |  |  |
| 18 - 19 | 122 |  | 7.1 | 68 | 17 | 2 | 7 | 2 | 8 | 9 | 4 | 2 | 2 | 1 | 55.7 | 85.2 | 92.6 | 95.9 | 1.6 | 1.6 | .8 |
| 20 - 24 | 496 |  | 28.8 | 337 | 49 | 13 | 21 | 7 | 24 | 17 | 5 | 5 | 6 | 12 | 67.9 | 90.9 | 94.4 | 95.4 | 1.0 | 1.2 | 2.4 |
| 25 - 29 | 490 |  | 28.4 | 307 | 55 | 13 | 22 | 7 | 22 | 36 | 11 | 5 | 3 | 9 | 62.7 | 86.9 | 94.3 | 96.5 | 1.0 | .6 | 1.8 |
| 30 - 34 | 339 |  | 19.7 | 224 | 32 | 8 | 12 | 8 | 15 | 18 | 7 | 6 | 4 | 5 | 66.1 | 88.2 | 93.5 | 95.6 | 1.8 | 1.2 | 1.5 |
| 35 - 39 | 164 |  | 9.5 | 108 | 16 | 5 | 8 | 3 | 7 | 11 | 3 | 1 |  | 2 | 65.9 | 89.6 | 96.3 | 98.2 | .6 |  | 1.2 |
| 40 - 44 | 52 |  | 3.0 | 34 | 5 | 2 | 2 | 2 |  | 3 | 2 |  |  | 2 | 65.4 | 86.5 | 92.3 | 96.2 |  |  | 3.8 |
| 45 - 49 | 5 |  | .3 | 3 | 1 | 1 |  |  |  |  |  |  |  |  | 60.0 | 100.0 | 100.0 | 100.0 |  |  |  |
| 50 & OVER | 1 |  | .1 | 1 |  |  |  |  |  |  |  |  |  |  | 100.0 | 100.0 | 100.0 | 100.0 |  |  |  |
| UNKNOWN | 7 |  | .4 | 4 | 1 |  | 1 |  |  | 1 |  |  |  |  | 57.1 | 85.7 | 100.0 | 100.0 |  |  |  |

*NUMBER OF FETAL DEATHS PER 1,000 LIVE BIRTHS

## TABLE 43

### STANDARD FETAL DEATHS BY RACE OF MOTHER AND AGE OF MOTHER
### STATE OF HAWAII, 1981

| ALL RACES |  | RACE OF MOTHER |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  | NO. | PER CENT | CAUC SIAN | HAWN | PART HAWN | CHI NESE | FILI PINO | JAPA NESE | PUER RCAN | KO REAN | SAMO AN | NE GRO | PORT GESE | VIET MESE | OT HER | UNKN |
|  | NUMBER | 1724 | 100.0 | 656 | 18 | 231 | 52 | 252 | 231 | 23 | 46 | 39 | 68 | 23 | 3 | 33 | 49 |
|  | PERCENT | 100.0 |  | 38.1 | 1.0 | 13.4 | 3.0 | 14.6 | 13.4 | 1.3 | 2.7 | 2.3 | 3.9 | 1.3 | .2 | 1.9 | 2.8 |
| UNDER 15 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15 - 17 |  | 48 | 2.8 | 20 |  | 13 | 2 | 6 | 1 |  |  | 2 |  | 1 |  | 1 | 2 |
| 18 - 19 |  | 122 | 7.1 | 41 | 5 | 30 |  | 22 | 8 | 1 | 1 | 1 | 7 | 5 |  |  | 1 |
| 20 - 24 |  | 496 | 28.8 | 224 | 6 | 77 | 3 | 62 | 38 | 7 | 6 | 15 | 33 | 6 |  | 8 | 11 |
| 25 - 29 |  | 490 | 28.4 | 199 | 5 | 62 | 22 | 57 | 69 | 7 | 9 | 6 | 18 | 4 | 2 | 13 | 17 |
| 30 - 34 |  | 339 | 19.7 | 114 | 1 | 25 | 15 | 54 | 72 | 5 | 16 | 10 | 7 | 4 |  | 5 | 11 |
| 35 - 39 |  | 164 | 9.5 | 47 | 1 | 15 | 8 | 30 | 35 | 1 | 9 | 5 | 3 | 3 | 1 | 3 | 3 |
| 40 - 44 |  | 52 | 3.0 | 8 |  | 6 | 2 | 20 | 8 | 2 | 3 |  |  |  |  | 3 |  |
| 45 - 49 |  | 5 | .3 |  |  | 2 |  | 1 |  |  | 2 |  |  |  |  |  |  |
| 50 & OVER |  | 1 | .1 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UNKNOWN |  | 7 | .4 | 2 |  | 1 |  |  |  |  |  |  |  |  |  |  | 4 |

## TABLE 44

### ELECTIVE ABORTIONS BY RACE OF MOTHER AND AGE OF MOTHER
### STATE OF HAWAII, 1981

| MOTHERS AGE IN YEARS | | NO. | PERCENT | ABORTIONS PER 1000 LIVE BIRTHS | RACE OF MOTHER | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | CAUCA-SIAN | HAWN | PART HAWN | CHIN-NESE | FILI-PINO | JAPA-NESE | PUERTO RICAN | KO-REAN | NEGRO | SA-MOAN | VIET-NAMESE | PORTU GESE | OTHER RACES | UN-KNOWN |
| | NUMBER | 6.692 | | | 2184 | 80 | 991 | 280 | 959 | 1111 | 37 | 287 | 126 | 120 | 42 | 40 | 219 | 216 |
| | PERCENT | | 100.0 | | 32.6 | 1.2 | 14.8 | 4.2 | 14.3 | 16.6 | .6 | 4.3 | 1.9 | 1.8 | .6 | .6 | 3.3 | 3.2 |
| UNDER 15 | | 33 | .5 | 1833.3 | 6 | 2 | 9 | | 7 | 7 | | | | | | | | 2 |
| 15 - 17 | | 56F | 8.5 | 1023.4 | 140 | 13 | 134 | 17 | 84 | 105 | 6 | 8 | 4 | 6 | 2 | 6 | 26 | 17 |
| 18 - 19 | | 890 | 13.3 | 597.3 | 255 | 14 | 179 | 32 | 122 | 163 | 2 | 16 | 20 | 12 | 4 | 8 | 31 | 32 |
| 20 - 24 | | 2.329 | 34.8 | 401.0 | 741 | 26 | 387 | 98 | 340 | 372 | 15 | 68 | 72 | 41 | 9 | 12 | 72 | 76 |
| 25 - 29 | | 1.554 | 23.2 | 273.3 | 596 | 19 | 168 | 58 | 201 | 214 | 10 | 97 | 20 | 37 | 16 | 10 | 52 | 56 |
| 30 - 34 | | 819 | 12.2 | 234.1 | 304 | 2 | 79 | 54 | 125 | 129 | 2 | 53 | 5 | 17 | 5 | 1 | 22 | 21 |
| 35 - 39 | | 366 | 5.5 | 371.6 | 108 | 2 | 31 | 15 | 55 | 87 | 2 | 31 | 5 | 6 | 6 | 1 | 10 | 7 |
| 40 - 44 | | 115 | 1.7 | 891.5 | 29 | 1 | 4 | 6 | 23 | 30 | | 13 | | 1 | | 2 | 4 | 2 |
| 45 - 49 | | 10 | .1 | 2500.0 | 2 | | | | 2 | 4 | | 1 | | | | | | 1 |
| 50 & OVER | | 1 | | 1000.0 | | | | | | | | | | | | | | 1 |
| UNKNOWN | | 7 | .1 | | 3 | 1 | | | | | | | | | | | 2 | 1 |

## TABLE 45

### ELECTIVE ABORTIONS BY AGE OF MOTHER AND LENGTH OF GESTATION PERIOD
### STATE OF HAWAII, 1981

| AGE OF MOTHER | TOTAL | GESTATION PERIOD IN WEEKS | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | UNDER 6 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 & OVER | UNKN |
| ALL AGES | 6.692 | 155 | 837 | 896 | 1,727 | 731 | 1.025 | 297 | 407 | 147 | 139 | 51 | 77 | 34 | 54 | 41 | 24 | 46 | 4 |
| UNDER 15 | 33 | | 2 | 3 | 8 | 3 | 2 | 2 | 2 | 1 | 1 | | 2 | | | 2 | 4 | 1 | |
| 15 - 17 | 568 | 7 | 54 | 73 | 113 | 68 | 76 | 42 | 44 | 17 | 18 | 9 | 13 | 5 | 10 | 3 | 3 | 12 | 1 |
| 18 - 19 | 890 | 17 | 80 | 120 | 234 | 98 | 127 | 38 | 64 | 26 | 22 | 9 | 15 | 9 | 10 | 8 | 5 | 7 | 1 |
| 20 - 24 | 2,329 | 51 | 265 | 274 | 653 | 259 | 379 | 104 | 141 | 51 | 46 | 17 | 25 | 8 | 19 | 19 | 5 | 13 | |
| 25 - 29 | 1,554 | 39 | 239 | 234 | 395 | 174 | 241 | 53 | 72 | 29 | 26 | 13 | 13 | 7 | 9 | 1 | 2 | 5 | 2 |
| 30 - 34 | 819 | 25 | 125 | 128 | 187 | 87 | 119 | 35 | 59 | 17 | 16 | 1 | 5 | 1 | 3 | 6 | 2 | 3 | |
| 35 - 39 | 366 | 11 | 59 | 49 | 95 | 31 | 60 | 16 | 19 | 3 | 9 | | 3 | 2 | 2 | 1 | 2 | 4 | |
| 40 - 44 | 115 | 4 | 9 | 13 | 37 | 10 | 19 | 6 | 5 | 3 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | |
| 45 - 49 | 10 | | 1 | | 4 | | 2 | 1 | 1 | | | | | 1 | | | | | |
| 50 & OVER | 1 | | | | 1 | | | | | | | | | | | | | | |
| UNKNOWN | 7 | 1 | 3 | 2 | | 1 | | | | | | | | | | | | | |

TABLE 46

ELECTIVE ABORTIONS BY LEGITIMACY AND RACE OF MOTHER
STATE OF HAWAII, 1981

| LEGITIMACY STATUS | TOTAL | RACE OF MOTHER | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CAUCASIAN | HAWN | PART HAWN | CHINESE | FILIPINO | JAPANESE | PUERTO RICAN | KOREAN | NEGRO | SAMOAN | PORTUGUESE | VIETNAMESE | OTHER RACES | UNKNOWN |
| TOTAL | 6,692 | 2,184 | 80 | 991 | 280 | 959 | 1,111 | 37 | 287 | 126 | 120 | 42 | 40 | 219 | 216 |
| LEGITIMATE | 1,917 | 489 | 16 | 248 | 100 | 402 | 296 | 11 | 121 | 36 | 44 | 21 | 10 | 63 | 60 |
| ILLEGITIMATE | 4,626 | 1,613 | 62 | 740 | 179 | 552 | 792 | 25 | 165 | 88 | 76 | 21 | 30 | 132 | 151 |
| UNKNOWN | 149 | 82 | 2 | 3 | 1 | 5 | 23 | 1 | 1 | 2 | | | | 24 | 5 |

TABLE 47

ELECTIVE ABORTIONS BY LEGITIMACY STATUS AND AGE OF MOTHER
STATE OF HAWAII, 1981

| LEGITIMACY STATUS | TOTAL | AGE OF MOTHER IN YEARS | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | UNDER 15 | 15-17 | 18-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | 45-49 | 50 & OVER | UNKNOWN |
| TOTAL | 6,692 | 33 | 568 | 890 | 2,329 | 1,554 | 819 | 366 | 115 | 10 | 1 | 7 |
| LEGITIMATE | 1,917 | | 27 | 92 | 534 | 561 | 406 | 205 | 79 | 9 | 1 | 3 |
| ILLEGITIMATE | 4,626 | 33 | 530 | 781 | 1,750 | 949 | 392 | 155 | 34 | 1 | | 1 |
| UNKNOWN | 149 | | 11 | 17 | 45 | 44 | 21 | 6 | 2 | | | 3 |

TABLE 48

ELECTIVE ABORTIONS BY TYPE OF PROCEDURE AND GESTATION PERIOD
STATE OF HAWAII, 1981

| TYPE OF PROCEDURE | TOTAL | GESTATION PERIOD IN WEEKS | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | UNDER 6 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17-19 | 20 & OVER | UNKN |
| TOTAL | 6,692 | 155 | 837 | 896 | 1,727 | 731 | 1,025 | 297 | 407 | 147 | 139 | 51 | 77 | 129 | 70 | 4 |
| SUCTION CURETTAGE | 6,096 | 148 | 776 | 793 | 1,645 | 718 | 1,016 | 291 | 393 | 135 | 108 | 22 | 22 | 17 | 8 | 4 |
| SHARP D & C | 55 | 2 | 10 | 2 | 5 | 5 | 2 | 1 | 4 | 4 | 6 | 2 | 5 | 4 | 1 | |
| AMNIOTIC FLUID EXCHANGE | 9 | | | | | | | | | 1 | 2 | | | 1 | 5 | |
| HYSTEROTOMY | 1 | | | | | | | | | | | | | | 1 | |
| HYSTERECTOMY | | | | | | | | | | | | | | | | |
| PROSTAGLANDIN | 98 | | | 2 | | | 2 | | 1 | | 5 | 9 | 16 | 43 | 20 | |
| OTHER | 424 | 5 | 50 | 95 | 77 | 7 | 5 | 4 | 8 | 7 | 16 | 18 | 34 | 63 | 35 | |
| NOT STATED | 9 | | 1 | 4 | | 1 | | 1 | 1 | | | | | 1 | | |
| UNKNOWN | | | | | | | | | | | | | | | | |

## TABLE 49

### ELECTIVE ABORTIONS BY COUNTY OF RESIDENCE AND COUNTY OF OCCURRENCE
### STATE OF HAWAII, 1981

| COUNTY OF RESIDENCE | NO. | PERCENT | ABORTIONS PER 1,000 LIVE BIRTHS | COUNTY OF OCCURRENCE | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | TOTAL | COUNTY OF HAWAII | | | COUNTY OF HONOLULU | | | KALAWAO CNTY | COUNTY OF KAUAI | | | COUNTY OF MAUI | | | | NON RES | UNK |
| | | | | | TOT- | HILO CITY | BAL | TOT | HON CITY | BAL | | TOT | KAUAI ISL | NIIHAU ISL | TOT | MAUI ISL | LANAI ISL | MOLOKAI ISL | | |
| TOTAL RECORDED NUMBER | 6652 | 100.0 | 367.1 | 6652 | 499 | 421 | 78 | 5571 | 4642 | 929 | | 251 | 251 | | 371 | 366 | | 5 | | |
| TOTAL RECORDED PERCENT | 100.0 | | | 100.0 | 7.5 | 6.3 | 1.2 | 83.2 | 69.4 | 13.9 | | 3.8 | 3.8 | | 5.5 | 5.5 | | .1 | | |
| STATE OF HAWAII | 6617 | 98.9 | 364.1 | 6617 | 498 | 420 | 78 | 5498 | 4583 | 915 | | 250 | 250 | | 371 | 366 | | 5 | | |
| COUNTY OF HAWAII | 505 | 7.5 | 255.3 | 505 | 484 | 406 | 78 | 21 | 20 | 1 | | | | | | | | | | |
| CITY OF HILO | 243 | 3.6 | 351.7 | 243 | 235 | 226 | 9 | 8 | 8 | | | | | | | | | | | |
| BALANCE OF COUNTY | 262 | 3.9 | 203.6 | 262 | 249 | 180 | 69 | 13 | 12 | 1 | | | | | | | | | | |
| COUNTY OF HONOLULU | 5367 | 80.2 | 384.8 | 5367 | 13 | 13 | | 5350 | 4441 | 909 | | | | | 4 | 4 | | | | |
| CITY OF HONOLULU | 3110 | 46.5 | 565.0 | 3110 | 1 | 1 | | 3108 | 2977 | 131 | | | | | 1 | 1 | | | | |
| BALANCE OF COUNTY | 2257 | 33.7 | 267.3 | 2257 | 12 | 12 | | 2242 | 1464 | 778 | | | | | 3 | 3 | | | | |
| COUNTY OF KALAWAO | | | | | | | | | | | | | | | | | | | | |
| COUNTY OF KAUAI | 278 | 4.2 | 365.8 | 278 | | | | 27 | 27 | | | 250 | 250 | | 1 | 1 | | | | |
| ISLAND OF KAUAI | 278 | 4.2 | 366.3 | 278 | | | | 27 | 27 | | | 250 | 250 | | 1 | 1 | | | | |
| ISLAND OF NIIHAU | | | | | | | | | | | | | | | | | | | | |
| COUNTY OF MAUI | 467 | 7.0 | 313.6 | 467 | 1 | 1 | | 100 | 95 | 5 | | | | | 366 | 361 | | 5 | | |
| ISLAND OF MAUI | 446 | 6.7 | 338.4 | 446 | 1 | 1 | | 84 | 82 | 2 | | | | | 361 | 361 | | | | |
| ISLAND OF LANAI | 3 | | 157.9 | 3 | | | | 3 | 2 | 1 | | | | | | | | | | |
| ISLAND OF MOLOKAI | 18 | .3 | 118.4 | 18 | | | | 13 | 11 | 2 | | | | | 5 | | | 5 | | |
| NON-RESIDENT | 72 | 1.1 | 1384.6 | 72 | 1 | 1 | | 70 | 56 | 14 | | 1 | 1 | | | | | | | |
| UNKNOWN | 3 | | 750.0 | 3 | | | | 3 | 3 | | | | | | | | | | | |

## TABLE 50

### MARRIAGES BY PLACE AND MONTH OF OCCURRENCE
### STATE OF HAWAII, 1981

| PLACE OF OCCURR | TOTAL | PERCENT | RATE* | MONTH OF OCCURRENCE | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | UNK |
| TOTAL | 12,218 | 100.0 | 12.5 | 865 | 966 | 839 | 911 | 1,095 | 1,179 | 1,146 | 1,269 | 968 | 929 | 946 | 1,105 | |
| PERCENT | | | | 7.1 | 7.9 | 6.9 | 7.5 | 9.0 | 9.6 | 9.4 | 10.4 | 7.9 | 7.6 | 7.7 | 9.0 | |
| STATE OF HAWAII | 12,218 | 100.0 | 12.5 | 865 | 966 | 839 | 911 | 1,095 | 1,179 | 1,146 | 1,269 | 968 | 929 | 946 | 1,105 | |
| COUNTY OF HAWAII | 1,027 | 8.4 | 10.8 | 79 | 83 | 85 | 79 | 86 | 110 | 83 | 117 | 65 | 79 | 74 | 87 | |
| CITY OF HILO | 432 | 3.5 | 2.3 | 28 | 37 | 35 | 29 | 38 | 42 | 42 | 58 | 25 | 27 | 29 | 42 | |
| BAL. OF COUNTY | 595 | 4.9 | 10.2 | 51 | 46 | 50 | 50 | 48 | 68 | 41 | 59 | 40 | 52 | 45 | 45 | |
| COUNTY OF HONOLUL | 8,659 | 70.9 | 11.2 | 612 | 681 | 566 | 657 | 779 | 839 | 830 | 888 | 693 | 643 | 668 | 803 | |
| CITY OF HONO. | 6,203 | 50.8 | 16.7 | 460 | 492 | 418 | 456 | 562 | 582 | 602 | 634 | 483 | 457 | 474 | 583 | |
| BAL. OF COUNTY | 2,456 | 20.1 | 6.1 | 152 | 189 | 148 | 201 | 217 | 257 | 228 | 254 | 210 | 186 | 194 | 220 | |
| COUNTY OF KALAWAO | 1 | | 6.3 | | | | | | | | | | 1 | | | |
| COUNTY OF KAUAI | 1,228 | 10.1 | 31.2 | 82 | 87 | 85 | 89 | 114 | 116 | 116 | 135 | 114 | 98 | 86 | 106 | |
| ISL OF KAUAI | 1,228 | 10.1 | 31.4 | 82 | 87 | 85 | 89 | 114 | 116 | 116 | 135 | 114 | 98 | 86 | 106 | |
| ISL OF NIIHAU | | | -- | | | | | | | | | | | | | |
| COUNTY OF MAUI | 1,303 | 10.7 | 18.0 | 92 | 115 | 103 | 86 | 116 | 114 | 117 | 129 | 96 | 108 | 118 | 109 | |
| ISL OF LANAI | 6 | | 2.8 | 2 | | 2 | | 1 | | 1 | | | | | | |
| ISL OF MAUI | 1,257 | 10.3 | 19.6 | 85 | 112 | 97 | 86 | 111 | 110 | 114 | 125 | 94 | 106 | 113 | 104 | |
| ISL OF MOLOKAI | 40 | .3 | 6.6 | 5 | 3 | 4 | | 4 | 4 | 2 | 4 | 2 | 2 | 5 | 5 | |
| UNKNOWN | | | | | | | | | | | | | | | | |

*RATE PER 1,000 POPULATION

## TABLE 51

### MARRIAGES BY AGE OF GROOM AND AGE OF BRIDE
### STATE OF HAWAII, 1981

| AGE OF GROOM | TOT | PERCENT | AGE OF BRIDE<br>15-17 | 18-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | 45-49 | 50-54 | 55-59 | 60-64 | 65-69 | 70-74 | 75 &> | UNK |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALL AGES | 12,218 | 100.0 | 235 | 1156 | 4049 | 3135 | 1669 | 832 | 410 | 256 | 189 | 110 | 77 | 37 | 15 | 7 | 1 |
| PERCENT | | | 1.9 | 9.8 | 33.1 | 25.7 | 13.7 | 6.8 | 3.4 | 2.1 | 1.5 | .9 | .6 | .3 | .1 | .1 | |
| 15 - 17 | 32 | .3 | 12 | 14 | 3 | 2 | 1 | | | | | | | | | | |
| 18 - 19 | 554 | 4.5 | 78 | 291 | 154 | 22 | 6 | 2 | | | 1 | | | | | | |
| 20 - 24 | 3,448 | 28.2 | 121 | 683 | 2010 | 456 | 130 | 39 | 6 | 1 | 2 | | | | | | |
| 25 - 29 | 3,121 | 25.5 | 19 | 145 | 1250 | 1252 | 343 | 87 | 18 | 5 | 2 | | | | | | |
| 30 - 34 | 2,085 | 17.1 | 2 | 40 | 430 | 852 | 558 | 150 | 39 | 11 | | 1 | 1 | | | | 1 |
| 35 - 39 | 1,062 | 8.7 | 2 | 12 | 131 | 331 | 321 | 188 | 60 | 13 | 4 | | | | | | |
| 40 - 44 | 621 | 5.1 | 1 | 6 | 41 | 125 | 156 | 151 | 88 | 34 | 15 | 3 | 1 | | | | |
| 45 - 49 | 426 | 3.5 | | 2 | 12 | 49 | 87 | 105 | 84 | 62 | 17 | 7 | 1 | | | | |
| 50 - 54 | 311 | 2.5 | | 3 | 9 | 26 | 36 | 63 | 60 | 49 | 50 | 14 | 1 | | | | |
| 55 - 59 | 207 | 1.7 | | | 5 | 9 | 18 | 23 | 29 | 40 | 40 | 26 | 14 | 3 | | | |
| 60 - 64 | 154 | 1.3 | | | 1 | 3 | 7 | 15 | 15 | 27 | 32 | 29 | 20 | 4 | 1 | | |
| 65 - 69 | 89 | .7 | | | | 5 | 3 | 2 | 4 | 8 | 16 | 12 | 23 | 13 | 1 | 2 | |
| 70 - 74 | 61 | .5 | | | | 2 | 1 | 5 | 4 | 5 | 8 | 9 | 6 | 11 | 7 | 1 | |
| 75 & > | 45 | .4 | | | 1 | 1 | 2 | 2 | 3 | 1 | 2 | 9 | 8 | 6 | 6 | 4 | |
| UNKNOWN | 2 | | | | 2 | | | | | | | | | | | | |

MEDIAN AGE OF GROOM WITH KNOWN AGES: 28.3

MEDIAN AGE OF BRIDE WITH KNOWN AGES: 26.0

## TABLE 52

### MARRIAGES BY PREVIOUS MARITAL STATUS OF GROOM AND OF BRIDE BY AGE
### STATE OF HAWAII, 1981

| AGE IN YEARS | | GROOM<br>TOTAL | PERCENT | NEVER MARRIED | WIDOWED | DIVORCED | ANNUL-MENT | UNKNOWN | BRIDE<br>TOTAL | PERCENT | NEVER MARRIED | WIDOWED | DIVORCED | ANNUL-MENT | UNKNOWN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL | NUMBER | 12,218 | 100.0 | 7,869 | 355 | 3,973 | 19 | 2 | 12,218 | 100.0 | 7,965 | 351 | 3,866 | 35 | 1 |
| | PERCENT | 100.0 | ... | 64.4 | 2.9 | 32.5 | .2 | | 100.0 | ... | 65.2 | 2.9 | 31.6 | .3 | |
| 15 - 17 | | 32 | .3 | 32 | | | | | 235 | 1.9 | 235 | | | | |
| 18 - 19 | | 554 | 4.5 | 552 | | 2 | | | 1,196 | 9.8 | 1,171 | | 25 | | |
| 20 - 24 | | 3,448 | 28.2 | 3,285 | 1 | 161 | 1 | | 4,049 | 33.1 | 3,637 | 12 | 395 | 5 | |
| 25 - 29 | | 3,121 | 25.5 | 2,507 | 5 | 603 | 5 | 1 | 3,135 | 25.7 | 2,093 | 18 | 1,013 | 11 | |
| 30 - 34 | | 2,085 | 17.1 | 1,060 | 17 | 1,000 | 7 | 1 | 1,669 | 13.7 | 609 | 46 | 1,001 | 12 | 1 |
| 35 - 39 | | 1,062 | 8.7 | 273 | 18 | 767 | 4 | | 832 | 6.8 | 134 | 27 | 668 | 3 | |
| 40 - 44 | | 621 | 5.1 | 77 | 19 | 524 | 1 | | 410 | 3.4 | 35 | 36 | 338 | 1 | |
| 45 - 49 | | 426 | 3.5 | 32 | 29 | 364 | 1 | | 256 | 2.1 | 15 | 39 | 201 | 1 | |
| 50 - 54 | | 311 | 2.5 | 24 | 41 | 246 | | | 189 | 1.5 | 23 | 39 | 127 | | |
| 55 - 59 | | 207 | 1.7 | 13 | 51 | 143 | | | 110 | .9 | 9 | 46 | 54 | 1 | |
| 60 - 64 | | 154 | 1.3 | 2 | 55 | 97 | | | 77 | .6 | 1 | 44 | 32 | | |
| 65 - 69 | | 89 | .7 | 5 | 46 | 38 | | | 37 | .3 | 1 | 27 | 8 | 1 | |
| 70 - 74 | | 61 | .5 | 3 | 39 | 19 | | | 15 | .1 | | 14 | 1 | | |
| 75 & over | | 45 | .4 | 3 | 34 | 8 | | | 7 | .1 | 1 | 3 | 3 | | |
| UNKNOWN | | 2 | | 1 | | 1 | | | 1 | | 1 | | | | |

## TABLE 53

### MARRIAGES BY OCCUPATION OF GROOM AND OF BRIDE
### STATE OF HAWAII, 1981

| CODE OCC OF GROOM | TOTAL | PERCENT | OCCUPATION CODE OF BRIDE 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | UNKNOWN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL | 12.218 | 100.0 | 3.585 | 1.730 | 823 | 3.053 | 788 | 118 | 156 | 1.268 | 8 | 40 | 646 | 3 |
| PERCENT | | | 29.3 | 14.2 | 6.7 | 25.0 | 6.4 | 1.0 | 1.3 | 10.4 | .1 | .3 | 5.3 | |
| 0 NO OCCUPATION | 853 | 7.0 | 457 | 85 | 17 | 141 | 30 | 2 | 12 | 81 | | 2 | 23 | |
| 1 PRO.TECH &KIND | 2.063 | 16.9 | 335 | 783 | 173 | 488 | 112 | 17 | 13 | 137 | | | 5 | |
| 2 FARM.MAN &OFFI | 1.762 | 14.4 | 359 | 269 | 281 | 508 | 150 | 15 | 21 | 145 | 2 | 7 | 3 | |
| 3 CLER & KINDRED | 493 | 4.1 | 86 | 46 | 32 | 232 | 30 | 2 | 5 | 59 | | | 6 | |
| 4 SALES WORKERS | 695 | 5.7 | 123 | 116 | 77 | 178 | 141 | 3 | 2 | 53 | | 1 | 4 | |
| 5 CRAFT.FOREMEN | 1.764 | 14.4 | 471 | 177 | 93 | 575 | 118 | 37 | 25 | 247 | | 4 | 17 | |
| 6 OPERATIVES | 801 | 6.6 | 289 | 32 | 38 | 237 | 52 | 11 | 30 | 104 | 1 | 5 | 2 | |
| 7 PRI HOUSEHOLD | 934 | 7.6 | 258 | 72 | 45 | 261 | 61 | 15 | 14 | 198 | 1 | 1 | 6 | 2 |
| 8 FARM LABORERS | 38 | .3 | 18 | 1 | 2 | 4 | 1 | | 2 | 8 | 2 | | | |
| 9 LABOR EX FARM | 488 | 4.0 | 207 | 30 | 18 | 99 | 19 | 3 | 16 | 76 | 1 | 17 | 2 | |
| 10 ARMED FORCES | 2.321 | 19.0 | 981 | 115 | 46 | 328 | 74 | 13 | 16 | 162 | 1 | 3 | 578 | |
| UNKNOWN | 6 | | 1 | | 1 | 2 | | | | 1 | | | | 1 |

## TABLE 54

### MARRIAGES BY PREVIOUS MARITAL STATUS OF GROOM AND OF BRIDE
### STATE OF HAWAII, 1981

| MARR. STAT. GROOM | TOTAL | PERCENT | MARITAL STATUS OF BRIDE NEVER MARRIED | WIDOWED | DIVORCED | ANNULMENT | UNKNOWN |
|---|---|---|---|---|---|---|---|
| TOTAL | 12.218 | 100.0 | 7,965 | 351 | 3,866 | 35 | 1 |
| PERCENT | | | 65.2 | 2.9 | 31.6 | .3 | |
| NEVER MARRIED | 7.869 | 64.4 | 6,406 | 66 | 1,385 | 12 | |
| WIDOWED | 355 | 2.9 | 66 | 112 | 175 | 2 | |
| DIVORCED | 3,973 | 32.5 | 1,484 | 173 | 2,299 | 17 | |
| ANNULMENT | 19 | .2 | 8 | | 7 | 4 | |
| UNKNOWN | 2 | | 1 | | | | 1 |

## TABLE 55

### MARRIAGES BY NUMBER OF TIMES GROOM AND BRIDE PREVIOUSLY MARRIED
### STATE OF HAWAII, 1981

| NO. GROOM MARRIED | TOTAL | PERCENT | TIMES PREVIOUSLY MARRIED - BRIDE NONE | 1 | 2 | 3 | 4 | 5 OR > | UNKNOWN |
|---|---|---|---|---|---|---|---|---|---|
| TOTAL | 12.218 | 100.0 | 7,965 | 3.398 | 710 | 125 | 16 | 3 | 1 |
| PERCENT | | | 65.2 | 27.8 | 5.8 | 1.0 | .1 | | |
| NONE | 7,869 | 64.4 | 6,406 | 1.279 | 161 | 22 | 1 | | |
| 1 | 3.426 | 28.0 | 1,350 | 1.669 | 347 | 55 | 4 | 1 | |
| 2 | 767 | 6.3 | 178 | 374 | 174 | 31 | 9 | 1 | |
| 3 | 118 | 1.0 | 24 | 61 | 20 | 11 | 2 | | |
| 4 | 32 | .3 | 5 | 12 | 8 | 6 | | 1 | |
| 5 & > | 5 | | 2 | 3 | | | | | |
| UNKNOWN | 1 | | | | | | | | 1 |

## TABLE 56

### MARRIAGES BY RACE AND AGE OF GROOM
### STATE OF HAWAII, 1981

| RACE OF GROOM | TOT | PERCENT | AGE OF GROOM | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 15-17 | 18-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | 45-49 | 50-54 | 55-59 | 60-64 | 65-69 | 70-74 | 75 &> | UNK |
| ALL RACES | 12,218 | 100.0 | 32 | 554 | 3448 | 3121 | 2085 | 1062 | 621 | 426 | 311 | 207 | 154 | 89 | 61 | 45 | 2 |
| CAUCASIAN | 6,349 | 52.0 | 5 | 192 | 1538 | 1388 | 1161 | 691 | 438 | 315 | 234 | 145 | 117 | 62 | 39 | 23 | 1 |
| HAWAIIAN | 88 | .7 | 2 | 5 | 23 | 17 | 9 | 10 | 5 | 5 | 6 | 2 | 2 | | 2 | | |
| PART HAWN | 1,420 | 11.6 | 11 | 141 | 530 | 355 | 200 | 80 | 40 | 27 | 14 | 10 | 9 | 1 | 1 | 1 | |
| CHINESE | 430 | 3.5 | | 7 | 91 | 167 | 102 | 22 | 11 | 13 | 8 | 2 | 2 | 3 | | 2 | |
| FILIPINO | 1,121 | 9.2 | 9 | 78 | 410 | 289 | 140 | 58 | 42 | 22 | 13 | 17 | 6 | 7 | 16 | 14 | |
| JAPANESE | 1,600 | 13.1 | 3 | 36 | 343 | 654 | 318 | 128 | 36 | 21 | 23 | 16 | 11 | 7 | 1 | 3 | |
| PUERTO RCN | 97 | .8 | | 16 | 35 | 15 | 7 | 3 | 6 | 2 | 2 | 4 | 1 | 5 | 1 | | |
| KOREAN | 128 | 1.0 | | 2 | 21 | 34 | 24 | 16 | 10 | 5 | 6 | 2 | 3 | 3 | | 2 | |
| SAMOAN | 188 | 1.5 | 1 | 19 | 74 | 42 | 24 | 16 | 6 | 1 | | 4 | | 1 | | | |
| NEGRO | 452 | 3.7 | | 27 | 258 | 72 | 52 | 23 | 9 | 7 | 2 | 1 | | | | | 1 |
| PORTUGUESE | 78 | .6 | | 10 | 25 | 16 | 10 | 4 | 3 | 3 | 1 | 4 | 2 | | | | |
| VIETNAMESE | 17 | .1 | | 3 | 7 | 6 | 1 | | | | | | | | | | |
| OTHER | 249 | 2.0 | 1 | 18 | 93 | 66 | 36 | 11 | 15 | 5 | 2 | | 1 | | 1 | | |
| UNKNOWN | 1 | | | | | | 1 | | | | | | | | | | |

## TABLE 57

### MARRIAGES BY RACE AND AGE OF BRIDE
### STATE OF HAWAII, 1981

| RACE OF BRIDE | TOT | PERCENT | AGE OF BRIDE | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 15-17 | 18-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | 45-49 | 50-54 | 55-59 | 60-64 | 65-69 | 70-74 | 75 &> | UNK |
| ALL RACES | 12,218 | 100.0 | 235 | 1196 | 4049 | 3135 | 1669 | 832 | 410 | 256 | 189 | 110 | 77 | 37 | 15 | 7 | 1 |
| CAUCASIAN | 5,895 | 48.2 | 74 | 442 | 1633 | 1474 | 963 | 537 | 280 | 177 | 128 | 87 | 56 | 28 | 13 | 2 | 1 |
| HAWAIIAN | 62 | .5 | 1 | 7 | 28 | 7 | 5 | 7 | 1 | 3 | 3 | | | | | | |
| PART HAWN | 1,546 | 12.7 | 56 | 289 | 644 | 291 | 136 | 65 | 35 | 10 | 8 | 4 | 5 | 3 | | | |
| CHINESE | 483 | 4.0 | 2 | 20 | 168 | 177 | 78 | 21 | 6 | | 6 | 1 | 2 | | | 2 | |
| FILIPINO | 1,327 | 10.9 | 51 | 191 | 534 | 281 | 127 | 64 | 27 | 15 | 22 | 7 | 5 | 1 | 1 | 1 | |
| JAPANESE | 1,768 | 14.5 | 15 | 90 | 631 | 658 | 226 | 75 | 27 | 21 | 12 | 6 | 5 | 2 | | | |
| PUERTO RCN | 77 | .6 | 1 | 14 | 25 | 11 | 8 | 7 | 2 | 1 | 3 | 1 | 1 | 1 | | 2 | |
| KOREAN | 277 | 2.3 | 4 | 10 | 81 | 83 | 42 | 20 | 17 | 13 | 2 | 2 | 2 | 1 | | | |
| SAMOAN | 172 | 1.4 | 8 | 28 | 81 | 22 | 16 | 9 | 3 | 3 | 1 | 1 | | | | | |
| NEGRO | 248 | 2.0 | 7 | 51 | 100 | 52 | 19 | 11 | 5 | 2 | | 1 | | | | | |
| PORTUGUESE | 76 | .6 | 2 | 22 | 21 | 15 | 5 | 3 | 1 | 3 | 1 | | 1 | 1 | 1 | | |
| VIETNAMESE | 34 | .3 | 2 | 5 | 7 | 5 | 12 | 1 | | 2 | | | | | | | |
| OTHER | 251 | 2.1 | 12 | 27 | 96 | 58 | 31 | 12 | 6 | 6 | 3 | | | | | | |
| UNKNOWN | 2 | | | | | 1 | 1 | | | | | | | | | | |

## TABLE 58

### MARRIAGES BY RESIDENCE OF GROOM AND OF BRIDE
### STATE OF HAWAII, 1981

| RESID OF GROOM | TOTAL RECORDED | PER CENT | RESIDENCE OF BRIDE |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  |  |  | COUNTY OF HAWAII |  |  | COUNTY OF HONOLULU |  |  |  | COUNTY OF KAUAI |  |  | COUNTY OF MAUI |  |  |  |  |  |
|  |  |  | TOTAL | TOTAL | HILO | BAL | TOTAL | HONO | BAL | KALA WAO | TOTAL | KAUAI | NII HAU | TOTAL | LA NAI | MAUI | MOLO KAI | NON RES | UNK |
| TOTAL | 12.218 | 100.0 | 9.185 | 771 | 303 | 468 | 7,281 | 3.616 | 3.665 |  | 368 | 367 | 1 | 765 | 5 | 724 | 36 | 3.033 |  |
| STATE OF HAWAII | 9.115 | 74.6 | 8,855 | 756 | 299 | 457 | 6,979 | 3.461 | 3.518 |  | 361 | 360 | 1 | 759 | 5 | 718 | 36 | 260 |  |
| COUNTY OF HAWAII | 783 | 6.4 | 771 | 740 | 292 | 448 | 25 | 13 | 12 |  | 2 | 2 |  | 4 |  | 3 | 1 | 12 |  |
| CITY OF HILO | 291 | 2.4 | 288 | 278 | 254 | 24 | 6 | 3 | 3 |  | 2 | 2 |  | 2 |  | 1 | 1 | 3 |  |
| BAL. OF COUNTY | 492 | 4.0 | 483 | 462 | 38 | 424 | 19 | 10 | 9 |  |  |  |  | 2 |  | 2 |  | 9 |  |
| COUNTY OF HONOLUL | 7.188 | 58.8 | 6.953 | 15 | 7 | 8 | 6,904 | 3,421 | 3.483 |  | 17 | 17 |  | 17 |  | 16 | 1 | 235 |  |
| CITY OF HONO. | 3.376 | 27.6 | 3.301 | 5 | 3 | 2 | 3.278 | 2,921 | 357 |  | 9 | 9 |  | 9 |  | 9 |  | 75 |  |
| BAL. OF COUNTY | 3.812 | 31.2 | 3.652 | 10 | 4 | 6 | 3.626 | 500 | 3.126 |  | 8 | 8 |  | 8 |  | 7 | 1 | 160 |  |
| COUNTY OF KALAWAO | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  |
| COUNTY OF KAUAI | 367 | 3.0 | 364 | 1 |  | 1 | 23 | 11 | 12 |  | 340 | 339 | 1 |  |  |  |  | 3 |  |
| ISL OF KAUAI | 366 | 3.0 | 363 | 1 |  | 1 | 23 | 11 | 12 |  | 339 | 339 |  |  |  |  |  | 3 |  |
| ISL OF NIIHAU | 1 |  | 1 |  |  |  |  |  |  |  | 1 |  | 1 |  |  |  |  |  |  |
| COUNTY OF MAUI | 776 | 6.4 | 767 |  |  |  | 27 | 16 | 11 |  | 2 | 2 |  | 738 | 5 | 699 | 34 | 9 |  |
| ISL OF LANAI | 6 |  | 5 |  |  |  |  |  |  |  |  |  |  | 5 | 5 |  |  | 1 |  |
| ISL OF MAUI | 733 | 6.0 | 725 |  |  |  | 26 | 15 | 11 |  | 1 | 1 |  | 698 |  | 698 |  | 8 |  |
| ISL OF MOLOKAI | 37 | .3 | 37 |  |  |  | 1 | 1 |  |  | 1 | 1 |  | 35 |  | 1 | 34 |  |  |
| NONRESIDENTS | 3.103 | 25.4 | 330 | 15 | 4 | 11 | 302 | 155 | 147 |  | 7 | 7 |  | 6 |  | 6 |  | 2.773 |  |
| UNKNOWN |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## TABLE 59

### MARRIAGES BY RACE OF GROOM AND RACE OF BRIDE
### STATE OF HAWAII, 1981

| RACE OF GROOM | TOTAL | PERCENT | RACE OF BRIDE |  |  |  |  |  |  |  |  |  |  |  |  |  | OUT MARRIAGES |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  |  | CAUCASIAN | HAWN | PART HAWN | CHINESE | FILIPINO | JAPANESE | PUERT RICAN | KOREAN | SAMOAN | NEGRO | PORTUGUESE | VIETNESE | OTHER RACES | UNKN | TOTAL | RATE/1000 |
| ALL RACES | 12.218 | 100.0 | 5895 | 62 | 1546 | 483 | 1327 | 1768 | 77 | 277 | 172 | 248 | 76 | 34 | 251 | 2 | 4406 | 360 |
| PERCENT |  |  | 48.2 | .5 | 12.7 | 4.0 | 10.9 | 14.5 | .6 | 2.3 | 1.4 | 2.0 | .6 | .3 | 2.1 |  | 36.1 | 2.9 |
| CAUCASIAN | 6,349 | 52.0 | 4878 | 17 | 327 | 12C | 384 | 391 | 20 | 91 | 27 | 28 | 11 | 15 | 80 |  | 1471 | 231 |
| HAWAIIAN | 88 | .7 | 32 | 8 | 30 | 1 | 8 | 4 | 1 |  |  |  | 1 |  | 3 |  | 80 | 909 |
| PART HAWN | 1.420 | 11.6 | 307 | 17 | 632 | 40 | 159 | 179 | 13 | 15 | 7 | 5 | 23 |  | 23 |  | 788 | 554 |
| CHINESE | 430 | 3.5 | 79 |  | 28 | 170 | 20 | 101 |  | 17 | 2 |  | 2 | 4 | 7 |  | 260 | 604 |
| FILIPINO | 1.121 | 9.2 | 181 | 5 | 164 | 19 | 608 | 92 | 6 | 9 | 5 | 2 | 14 | 1 | 14 | 1 | 513 | 457 |
| JAPANESE | 1.600 | 13.1 | 195 | 6 | 167 | 107 | 60 | 978 | 3 | 68 | 2 | 2 | 7 |  | 5 |  | 622 | 388 |
| PUERTO RCN | 97 | .8 | 18 | 2 | 23 | 1 | 15 | 5 | 24 |  | 4 | 1 | 2 |  | 2 |  | 73 | 752 |
| KOREAN | 128 | 1.0 | 11 |  | 15 | 6 | 3 | 19 |  | 72 | 1 |  |  | 1 |  |  | 56 | 437 |
| SAMOAN | 188 | 1.5 | 24 |  | 33 | 5 | 9 | 2 |  | 1 | 110 |  |  |  | 4 |  | 78 | 414 |
| NEGRO | 452 | 3.7 | 93 | 2 | 61 | 2 | 37 | 13 | 9 | 2 | 10 | 208 |  |  | 15 |  | 244 | 539 |
| PORTUGUESE | 78 | .6 | 13 | 1 | 24 | 2 | 9 | 10 | 1 |  |  | 1 | 15 | 1 | 1 |  | 63 | 807 |
| VIETNAMESE | 17 | .1 | 1 |  |  | 3 |  |  |  |  |  |  |  | 12 | 1 |  | 5 | 294 |
| OTHER | 249 | 2.0 | 63 | 4 | 42 | 7 | 15 | 14 |  | 2 | 4 | 1 | 1 |  | 96 |  | 153 | 614 |
| UNKNOWN | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  |  |
| OUT MARRIAGES | 4.406 | 36.1 | 1017 | 54 | 914 | 313 | 719 | 790 | 53 | 205 | 62 | 40 | 61 | 22 | 155 | 1 |  |  |
| RATE/1000 | 360 |  | 172 | 870 | 591 | 648 | 541 | 446 | 688 | 740 | 360 | 161 | 802 | 647 | 617 | 500 |  |  |

## TABLE 60

### DIVORCES AND ANNULMENTS BY PLACE AND MONTH OF OCCURRENCE
### STATE OF HAWAII, 1981

| COUNTY OF OCCURRENCE | | YEAR | | MONTH OF OCCURRENCE | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NUMBER | RATE* | JAN. | FEB. | MAR. | APR. | MAY | JUNE | JULY | AUG. | SEPT. | OCT. | NOV. | DEC. |
| STATE OF HAWAII | NUMBER | 4.253 | 4.3 | 348 | 347 | 335 | 295 | 303 | 324 | 378 | 405 | 380 | 368 | 326 | 444 |
| | PERCENT | 100.0 | | 8.2 | 8.2 | 7.9 | 6.9 | 7.1 | 7.6 | 8.9 | 9.5 | 8.9 | 8.7 | 7.7 | 10.4 |
| HAWAII | | 428 | 4.5 | 30 | 36 | 32 | 32 | 49 | 34 | 41 | 34 | 23 | 54 | 19 | 44 |
| HONOLULU | | 3.234 | 4.2 | 277 | 268 | 256 | 208 | 206 | 232 | 295 | 321 | 306 | 265 | 269 | 331 |
| KAUAI | | 180 | 4.6 | 13 | 11 | 15 | 18 | 11 | 14 | 15 | 17 | 18 | 21 | 16 | 11 |
| MAUI | | 411 | 5.4 | 28 | 32 | 32 | 37 | 37 | 44 | 27 | 33 | 33 | 28 | 22 | 58 |
| UNKNOWN | | | | | | | | | | | | | | | |

*RATE PER 1,000 RESIDENT POPULATION

## TABLE 61

### DIVORCES AND ANNULMENTS BY NUMBER OF CHILDREN REPORTED UNDER 18 YEARS
### STATE OF HAWAII, 1981

| TYPE OF DECREE | | TOTAL | | NUMBER OF CHILDREN REPORTED UNDER 18 YEARS OF AGE | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NUMBER | PERCENT | NONE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | > 9 | UNKNOWN |
| TOTAL | NUMBER | 4.253 | 100.0 | 1949 | 1020 | 811 | 306 | 119 | 23 | 11 | 2 | | 1 | 1 | 10 |
| | PERCENT | 100.0 | | 45.8 | 24.0 | 19.1 | 7.2 | 2.8 | .5 | .3 | | | | | .2 |
| DIVORCES | | 4.235 | 99.6 | 1935 | 1018 | 809 | 306 | 119 | 23 | 11 | 2 | | 1 | 1 | 10 |
| ANNULMENTS | | 18 | .4 | 14 | 2 | 2 | | | | | | | | | |
| UNKNOWN | | | | | | | | | | | | | | | |

## TABLE 62

### DIVORCES AND ANNULMENTS BY RACE AND AGE OF HUSBAND
### STATE OF HAWAII, 1981

| RACE OF HUSBAND | | ALL AGES | | AGE OF HUSBAND | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NUMBER | PERCENT | UNDER 18 | 18-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | 45-49 | 50-54 | 55-59 | 60-64 | 65-69 | 70-74 | 75 & OVER | UN-KNOWN |
| ALL RACES | NUMBER | 4.253 | 100.0 | 1 | 14 | 479 | 958 | 1028 | 687 | 410 | 238 | 166 | 99 | 57 | 37 | 29 | 19 | 31 |
| | PERCENT | 100.0 | | | .3 | 11.3 | 22.5 | 24.2 | 16.2 | 9.6 | 5.6 | 3.9 | 2.3 | 1.3 | .9 | .7 | .4 | .7 |
| CAUCASIAN | | 2.052 | 48.2 | 1 | 8 | 267 | 426 | 498 | 340 | 186 | 121 | 75 | 42 | 40 | 21 | 9 | 4 | 14 |
| HAWAIIAN | | 53 | 1.2 | | | 4 | 14 | 8 | 8 | 7 | 6 | 3 | 1 | | 2 | | | |
| PART HAWAIIAN | | 500 | 11.8 | | 2 | 68 | 142 | 100 | 76 | 59 | 25 | 16 | 6 | 2 | 2 | | 1 | 1 |
| CHINESE | | 124 | 2.9 | | | 1 | 26 | 34 | 28 | 11 | 5 | 8 | 3 | 3 | | 1 | 2 | 2 |
| FILIPINO | | 474 | 11.1 | | | 42 | 109 | 114 | 65 | 42 | 24 | 17 | 15 | 4 | 5 | 18 | 11 | 8 |
| JAPANESE | | 551 | 13.0 | | | 26 | 110 | 162 | 104 | 58 | 34 | 26 | 21 | 5 | 2 | 1 | | 2 |
| PUERTO RICAN | | 42 | 1.0 | | | 12 | 8 | 6 | 8 | 1 | 3 | 2 | 2 | | | | | |
| KOREAN | | 95 | 2.2 | | 1 | 7 | 15 | 22 | 18 | 12 | 9 | 4 | 1 | 2 | 3 | | | 1 |
| SAMOAN | | 41 | 1.0 | | | | 14 | 12 | 7 | 5 | 1 | 1 | | | | | | 1 |
| NEGRO | | 160 | 3.8 | | 1 | 39 | 55 | 30 | 14 | 7 | 6 | 2 | 3 | | 1 | | 1 | 1 |
| PORTUGUESE | | 74 | 1.7 | | 2 | 8 | 14 | 14 | 5 | 12 | 2 | 9 | 5 | 1 | 1 | | | 1 |
| VIETNAMESE | | 9 | .2 | | | | 6 | 2 | 1 | | | | | | | | | |
| OTHER RACES | | 77 | 1.8 | | | 5 | 18 | 26 | 13 | 10 | 2 | 3 | | | | | | |
| UNKNOWN | | 1 | | | | | 1 | | | | | | | | | | | |

TABLE 63

DIVORCES AND ANNULMENTS BY RACE AND AGE OF WIFE
STATE OF HAWAII, 1981

| RACE OF WIFE | | ALL AGES | | AGE OF WIFE | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NUMBER | PERCENT | UNDER 18 | 18-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | 45-49 | 50-54 | 55-59 | 60-64 | 65-69 | 70-74 | 75 & OVER | UN-KNOWN |
| ALL RACES | NUMBER | 4.253 | 100.0 | 5 | 75 | 771 | 1145 | 919 | 566 | 333 | 151 | 113 | 70 | 31 | 21 | 4 | 4 | 45 |
| | PERCENT | 100.0 | | .1 | 1.8 | 18.1 | 26.9 | 21.6 | 13.3 | 7.8 | 3.6 | 2.7 | 1.6 | .7 | .5 | .1 | .1 | 1.1 |
| CAUCASIAN | | 1.962 | 46.1 | 1 | 41 | 364 | 526 | 437 | 249 | 151 | 66 | 48 | 31 | 20 | 10 | 2 | | 16 |
| HAWAIIAN | | 26 | .6 | | | 6 | 5 | 5 | 3 | 2 | 1 | 3 | 1 | | | | | |
| PART HAWAIIAN | | 457 | 10.7 | | 9 | 99 | 118 | 89 | 69 | 38 | 11 | 12 | 8 | 3 | | | | 1 |
| CHINESE | | 164 | 3.9 | 1 | 2 | 23 | 37 | 40 | 21 | 11 | 9 | 11 | 2 | 3 | 2 | | 1 | 1 |
| FILIPINO | | 483 | 11.4 | 1 | 7 | 100 | 136 | 91 | 55 | 36 | 15 | 9 | 8 | 2 | 3 | 2 | 3 | 15 |
| JAPANESE | | 606 | 14.2 | 1 | 4 | 71 | 153 | 154 | 109 | 49 | 28 | 18 | 11 | 2 | 3 | | | 3 |
| PUERTO RICAN | | 46 | 1.1 | | | 10 | 11 | 11 | 5 | 3 | 1 | 2 | 3 | | | | | |
| KOREAN | | 217 | 5.1 | | 1 | 31 | 70 | 45 | 24 | 23 | 11 | 5 | 3 | | 2 | | | 2 |
| SAMOAN | | 38 | .9 | 1 | | 7 | 13 | 8 | 4 | 4 | | | | | | | | 1 |
| NEGRO | | 81 | 1.9 | | 3 | 27 | 27 | 9 | 5 | 4 | 6 | | | | | | | |
| PORTUGUESE | | 52 | 1.2 | | 3 | 8 | 16 | 7 | 7 | 4 | 2 | 3 | | 1 | 1 | | | |
| VIETNAMESE | | 29 | .7 | | 1 | 5 | 7 | 8 | 4 | 4 | | | | | | | | |
| OTHER RACES | | 92 | 2.2 | | 4 | 20 | 26 | 15 | 11 | 4 | 1 | 2 | 3 | | | | | 6 |
| UNKNOWN | | | | | | | | | | | | | | | | | | |

TABLE 64

DIVORCES AND ANNULMENTS BY RACE OF HUSBAND AND OF WIFE
STATE OF HAWAII, 1981

| RACE OF HUSBAND | | ALL RACES | | RACE OF WIFE | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NUMBER | PERCENT | CAUCA-SIAN | HAWN | PART HAWN | CHI-NESE | FILI-PINO | JAPA-NESE | PUERTO RICAN | KO-REAN | SA-MOAN | NEGRO | PORTU GUESE | VIETNA-MESE | OTHER RACES | UN-KNOWN |
| ALL RACES | NUMBER | 4.253 | 100.0 | 1962 | 26 | 457 | 164 | 483 | 606 | 46 | 217 | 38 | 81 | 52 | 29 | 92 | |
| | PERCENT | 100.0 | | 46.1 | .6 | 10.7 | 3.9 | 11.4 | 14.2 | 1.1 | 5.1 | .9 | 1.9 | 1.2 | .7 | 2.2 | |
| CAUCASIAN | | 2.052 | 48.2 | 1519 | 8 | 110 | 43 | 98 | 118 | 12 | 82 | 7 | 9 | 4 | 14 | 28 | |
| HAWAIIAN | | 53 | 1.2 | 20 | 7 | 13 | 1 | 5 | 3 | 1 | | | | | | 3 | |
| PART HAWAIIAN | | 500 | 11.8 | 141 | 4 | 168 | 22 | 54 | 60 | 6 | 9 | 6 | | 18 | | 12 | |
| CHINESE | | 124 | 2.9 | 16 | | 6 | 53 | 8 | 27 | | 6 | | 1 | 3 | 2 | 2 | |
| FILIPINO | | 474 | 11.1 | 84 | 2 | 52 | 6 | 263 | 44 | 5 | 7 | 3 | | 5 | | 3 | |
| JAPANESE | | 551 | 13.0 | 74 | | 49 | 29 | 24 | 320 | 1 | 38 | 1 | | 4 | 3 | 8 | |
| PUERTO RICAN | | 42 | 1.0 | 4 | | 10 | 2 | 4 | 3 | 11 | 3 | | 2 | 3 | | | |
| KOREAN | | 95 | 2.2 | 10 | | 2 | 2 | 1 | 14 | | 64 | 1 | | 1 | | | |
| SAMOAN | | 41 | 1.0 | 11 | | 5 | 1 | 3 | | | | 19 | | | | 2 | |
| NEGRO | | 160 | 3.8 | 46 | 2 | 9 | 3 | 7 | 6 | 6 | 4 | 1 | 69 | 1 | 1 | 5 | |
| PORTUGUESE | | 74 | 1.7 | 11 | | 25 | 2 | 11 | 7 | 3 | 1 | | | 12 | | 2 | |
| VIETNAMESE | | 9 | .2 | | | | | | | | | | | | 8 | 1 | |
| OTHER RACES | | 77 | 1.8 | 25 | 3 | 8 | | 5 | 4 | 1 | 3 | | | 1 | 1 | 26 | |
| UNKNOWN | | 1 | | 1 | | | | | | | | | | | | | |

### TABLE 65

### DIVORCES AND ANNULMENTS BY LEGAL GROUNDS AND DURATION OF MARRIAGE
### STATE OF HAWAII, 1981

| LEGAL GROUNDS | | TOTAL | | DURATION OF MARRIAGE IN YEARS | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NUMBER | PERCENT | UNDER 1 | 1 | 2 | 3 | 4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 & OVER | UN-KNOWN |
| DIVORCES & ANNULMENTS | NUMBER | 4,253 | 100.0 | 170 | 444 | 465 | 399 | 358 | 1269 | 608 | 308 | 168 | 60 | | | 3 | 1 |
| | PERCENT | 100.0 | | 4.0 | 10.4 | 10.9 | 9.4 | 8.4 | 29.8 | 14.3 | 7.2 | 4.0 | 1.4 | | | 1 | |
| ABSOLUTE DIVORCES* | | 4,235 | 99.6 | 166 | 441 | 460 | 398 | 358 | 1265 | 608 | 307 | 168 | 60 | | | 3 | 1 |
| MARR.IRRETR.BROKEN | | 4,205 | 98.9 | 165 | 440 | 459 | 396 | 355 | 1257 | 605 | 304 | 162 | 60 | | | 1 | 1 |
| SEPARATION | | 28 | .7 | 1 | | 1 | 2 | 3 | 8 | 2 | 3 | 6 | | | | 2 | |
| GRIEV.MENTAL SUFF. | | 1 | | | | | | | | 1 | | | | | | | |
| OTHER | | | | | | | | | | | | | | | | | |
| UNKNOWN | | 1 | | | 1 | | | | | | | | | | | | |
| ANNULMENTS | | 18 | .4 | 4 | 3 | 5 | 1 | | 4 | | 1 | | | | | | |
| MINOR | | 1 | | | 1 | | | | | | | | | | | | |
| UNDIV.SPOUSE ALIVE | | 11 | .3 | 1 | 2 | 3 | 1 | | 4 | | | | | | | | |
| DID NOT COHABIT | | 2 | | 1 | | 1 | | | | | | | | | | | |
| FAILURE TO PROVIDE | | | | | | | | | | | | | | | | | |
| PHYS. INCOMPATIBLE | | 1 | | 1 | | | | | | | | | | | | | |
| FRAUD | | 2 | | 1 | | 1 | | | | | | | | | | | |
| OTHER | | 1 | | | | | | | | | 1 | | | | | | |
| UNKNOWN | | | | | | | | | | | | | | | | | |

*INCLUDES TYPE OF DECREE UNSPECIFIED

### TABLE 66

### DIVORCES AND ANNULMENTS BY EDUCATION OF HUSBAND AND OF WIFE
### STATE OF HAWAII, 1981

| EDUCATION OF HUSBAND YEARS OF SCHOOL | | TOTAL | | EDUCATION OF WIFE - YEARS IN SCHOOL | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | GRADE SCHOOL | | | | | | | | COLLEGE | | | UN-KNOWN |
| | | NUMBER | PERCENT | NONE | 1-4 | 5-6 | 7-8 | 9 | 10 | 11 | 12 | 1-3 | 4 | 5+ | |
| TOTAL | NUMBER | 4,253 | 100.0 | 13 | 23 | 56 | 71 | 105 | 135 | 187 | 1884 | 1037 | 429 | 211 | 102 |
| | PERCENT | 100.0 | | .3 | .5 | 1.3 | 1.7 | 2.5 | 3.2 | 4.4 | 44.3 | 24.4 | 10.1 | 5.0 | 2.4 |
| NONE | | 15 | .4 | 3 | | 1 | 1 | 1 | | | | 2 | 1 | | 6 |
| GRADE SCHOOL: 1 - 4 | | 21 | .5 | 1 | | 1 | 4 | | 1 | | 3 | 1 | 1 | | 9 |
| 5 - 6 | | 47 | 1.1 | | 5 | 9 | 5 | 2 | 2 | 1 | 10 | 5 | 3 | | 5 |
| 7 - 8 | | 62 | 1.5 | | | 3 | 3 | 1 | 2 | 4 | 31 | 11 | 4 | 1 | 2 |
| 9 | | 81 | 1.9 | 1 | | | | 9 | 4 | 9 | 38 | 16 | | 1 | 3 |
| 10 | | 137 | 3.2 | | 2 | 2 | 4 | 6 | 12 | 15 | 64 | 24 | 5 | 1 | 2 |
| 11 | | 180 | 4.2 | | | | 5 | 7 | 10 | 22 | 95 | 31 | 3 | 2 | 5 |
| 12 | | 1,818 | 42.7 | 4 | 8 | 20 | 33 | 56 | 72 | 103 | 1090 | 291 | 71 | 34 | 36 |
| COLLEGE: 1 - 3 | | 931 | 21.9 | 2 | 4 | 10 | 6 | 16 | 16 | 21 | 335 | 375 | 91 | 34 | 21 |
| 4 | | 498 | 11.7 | | 1 | 5 | 3 | 2 | 5 | 2 | 127 | 164 | 138 | 45 | 6 |
| 5+ | | 338 | 7.9 | | | | 1 | | 3 | 2 | 45 | 93 | 103 | 90 | 1 |
| UNKNOWN | | 125 | 2.9 | 2 | 3 | 5 | 6 | 5 | 8 | 8 | 46 | 24 | 9 | 3 | 6 |

### TABLE 67

### DIVORCES AND ANNULMENTS BY RESIDENCE OF HUSBAND AND OF WIFE
### STATE OF HAWAII, 1981

| RESIDENCE OF HUSBAND | RESIDENCE OF WIFE | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | TOTAL RECORDED | STATE OF HAWAII | | | | | | | | | | | | | NON-RESIDENT |
| | | TOTAL | COUNTY OF HAWAII | | | COUNTY OF HONOLULU | | | COUNTY OF KAUAI | COUNTY OF MAUI | | | | UN-KNOWN | |
| | | | TOTAL | HILO | BAL. | TOTAL | HON. | BAL. | | TOTAL | MAUI | LANAI | MOLOKAI | | |
| TOTAL RECORDED | 4,253 | 3,710 | 395 | 165 | 230 | 2,781 | 1,399 | 1,382 | 154 | 364 | 344 | 8 | 12 | 16 | 543 |
| STATE OF HAWAII | 3,755 | 3,215 | 356 | 152 | 204 | 2,372 | 1,204 | 1,168 | 143 | 328 | 311 | 6 | 11 | 16 | 540 |
| COUNTY OF HAWAII | 381 | 351 | 323 | 140 | 183 | 22 | 15 | 7 | 2 | 2 | 1 | | 1 | 2 | 30 |
| CITY OF HILO | 135 | 127 | 117 | 98 | 19 | 9 | 7 | 2 | | | | | | 1 | 8 |
| BALANCE OF COUNTY | 246 | 224 | 206 | 42 | 164 | 13 | 8 | 5 | 2 | 2 | 1 | | 1 | 1 | 22 |
| COUNTY OF HONOLULU | 2,791 | 2,332 | 18 | 8 | 10 | 2,270 | 1,140 | 1,130 | 9 | 27 | 22 | 1 | 4 | 8 | 459 |
| CITY OF HONOLULU | 1,371 | 1,178 | 11 | 4 | 7 | 1,143 | 856 | 287 | 5 | 12 | 11 | | 1 | 7 | 193 |
| BALANCE OF COUNTY | 1,420 | 1,154 | 7 | 4 | 3 | 1,127 | 284 | 843 | 4 | 15 | 11 | 1 | 3 | 1 | 266 |
| COUNTY OF KAUAI | 163 | 145 | 4 | 1 | 3 | 15 | 7 | 8 | 125 | 1 | 1 | | | | 18 |
| COUNTY OF MAUI | 374 | 341 | 5 | 1 | 4 | 38 | 24 | 14 | 2 | 290 | 279 | 5 | 6 | 6 | 33 |
| ISLAND OF MAUI | 356 | 324 | 4 | 1 | 3 | 34 | 24 | 10 | 1 | 279 | 277 | 1 | 1 | 6 | 32 |
| ISLAND OF LANAI | 9 | 8 | 1 | | 1 | 1 | | 1 | | 6 | 2 | 4 | | | 1 |
| ISLAND OF MOLOKAI | 9 | 9 | | | | 3 | | 3 | 1 | 5 | | | 5 | | |
| UNKNOWN | 46 | 46 | 6 | 2 | 4 | 27 | 18 | 9 | 5 | 8 | 8 | | | | |
| NONRESIDENT | 498 | 495 | 39 | 13 | 26 | 409 | 195 | 214 | 11 | 36 | 33 | 2 | 1 | | 3 |

### TABLE 68

### DIVORCES AND ANNULMENTS BY AGE OF HUSBAND AND OF WIFE
### STATE OF HAWAII, 1981

| AGE OF HUSBAND | | ALL AGES | | AGE OF WIFE | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NUMBER | PERCENT | UNDER 18 | 18-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | 45-49 | 50-54 | 55-59 | 60-64 | 65-69 | 70-74 | 75 & OVER | UN-KNOWN |
| ALL AGES | NUMBER | 4,253 | 100.0 | 5 | 75 | 771 | 1145 | 919 | 566 | 333 | 151 | 113 | 70 | 31 | 21 | 4 | 4 | 45 |
| | PERCENT | 100.0 | | .1 | 1.8 | 18.1 | 26.9 | 21.6 | 13.3 | 7.8 | 3.6 | 2.7 | 1.6 | .7 | .5 | .1 | .1 | 1.1 |
| UNDER 18 | | 1 | | | | | 1 | | | | | | | | | | | |
| 18 - 19 | | 14 | .3 | 1 | 4 | 7 | 2 | | | | | | | | | | | |
| 20 - 24 | | 479 | 11.3 | 2 | 53 | 317 | 77 | 20 | 3 | 2 | 1 | | | | | | | 4 |
| 25 - 29 | | 958 | 22.5 | 1 | 12 | 306 | 497 | 104 | 16 | 8 | 3 | 2 | | | | | | 9 |
| 30 - 34 | | 1,028 | 24.2 | | 6 | 98 | 387 | 434 | 72 | 21 | | 2 | | | | | | 8 |
| 35 - 39 | | 687 | 16.2 | | | 22 | 112 | 240 | 244 | 48 | 12 | 3 | 1 | | | | | 5 |
| 40 - 44 | | 410 | 9.6 | | | 6 | 31 | 63 | 150 | 118 | 26 | 5 | 3 | 2 | 1 | | | 5 |
| 45 - 49 | | 238 | 5.6 | | | 4 | 14 | 30 | 34 | 82 | 48 | 15 | 4 | 2 | 1 | | | 4 |
| 50 - 54 | | 166 | 3.9 | | | 3 | 5 | 9 | 23 | 30 | 34 | 45 | 13 | 2 | | | | 2 |
| 55 - 59 | | 99 | 2.3 | | | | 3 | 6 | 10 | 8 | 16 | 29 | 19 | 4 | 2 | | | 2 |
| 60 - 64 | | 57 | 1.3 | | | 1 | 2 | 1 | 5 | 7 | 4 | 6 | 19 | 8 | 3 | | | 1 |
| 65 - 69 | | 37 | .9 | 1 | | 1 | 2 | 1 | | 3 | 4 | 3 | 5 | 8 | 7 | | | 2 |
| 70 - 74 | | 29 | .7 | | | | 4 | 3 | 1 | 3 | | 1 | 4 | 2 | 4 | 3 | 2 | 2 |
| 75 & OVER | | 19 | .4 | | | 1 | | 3 | 1 | 1 | | 1 | 2 | 3 | 3 | 1 | 2 | 1 |
| UNKNOWN | | 31 | .7 | | | 5 | 8 | 5 | 7 | 2 | 3 | 1 | | | | | | |

# HAWAII TUMOR REGISTRY

The total number of resident cancer cases reported in Hawaii in 1980 (the most recent year of complete registration) was 2,769, a 3.6% increase over the number of cases (2,673) reported in 1979. The additional 96 cases reported in 1980 were all male (7.1% increase). There was no change in the number (1,316) of female cases registered in 1980.

The three most common cancers among resident males in 1980 were of the lung, prostate, and colon (the same order as in 1979), while among resident females the three most common cancer sites in 1980 were breast, cervix, and colon (the latter replacing cancer of the uterus in women, reported in 1979 as the third most common female cancer). In women, lung cancer slipped to fifth place among the common cancers.

In 1980, cancer of the lung was the most common malignant disease in Caucasian, Japanese, Hawaiian or part-Hawaiian and Chinese males, while cancer of the prostate was most common in Filipino males. Malignant melanoma has become the third most common cancer among Caucasian males. Cancer of the breast was the most common female malignant disease among all major races in the State.

The median age-at-diagnosis for resident males in 1980 was 66.3 years. The median age-at-diagnosis for resident females in 1980 was 59.6 years.

Of the 1,453 male resident cases registered in 1980, 824 (56.7%) were alive at last report. Of these, 536 (65.0%) were capable of "normal activity", and there were no report on the performance status of 205 male patients (24.9%) still alive.

Of the 1,316 female resident cases registered in 1980, 994 (75.5%) were alive at last report. Of these, 768 (77.3%) were capable of "normal activity", and there were no report on the performance status of 124 female patients (12.5%) still alive.

TABLE 1

MOST COMMON CANCERS REPORTED BY SITE AND RACE
MALE RESIDENTS
STATE OF HAWAII, 1980

| SITE | Total All Races | RACE | | | | | |
|---|---|---|---|---|---|---|---|
| | | Caucasian | Chinese | Filipino | Hawaiian | Japanese | Other |
| Total All Sites | 1,453 | 499 | 94 | 160 | 172 | 434 | 94 |
| Bladder | 80 | 30 | 7 | 9 | 7 | 22 | 5 |
| Colon | 163 | 50 | 9 | 17 | 17 | 65 | 5 |
| Leukemia | 50 | 19 | 3 | 4 | 5 | 11 | 8 |
| Lung | 258 | 85 | 15 | 24 | 44 | 69 | 21 |
| Melanoma | 67 | 54 | - | 2 | - | 4 | 7 |
| Pancreas | 40 | 11 | 8 | 3 | 4 | 14 | - |
| Prostate | 206 | 83 | 11 | 32 | 18 | 59 | 3 |
| Rectum | 73 | 12 | 2 | 17 | 7 | 30 | 5 |
| Stomach | 96 | 11 | 1 | 7 | 22 | 48 | 7 |
| Other | 420 | 144 | 38 | 45 | 48 | 112 | 33 |

TABLE 2

MOST COMMON CANCERS REPORTED BY SITE AND RACE
FEMALE RESIDENTS
STATE OF HAWAII, 1980

| SITE | Total All Races | RACE | | | | | |
|---|---|---|---|---|---|---|---|
| | | Caucasian | Chinese | Filipina | Hawaiian | Japanese | Other |
| Total All Sites | 1,316 | 477 | 94 | 98 | 146 | 377 | 124 |
| Breast | 328 | 111 | 20 | 20 | 50 | 10[illegible] | 27 |
| Cervix | 157 | 67 | 9 | 13 | 14 | 21 | 33 |
| Uterus | 96 | 35 | 8 | 3 | 10 | 35 | 5 |
| Colon | 107 | 35 | 13 | 8 | 6 | 40 | 5 |
| Lung | 92 | 45 | 13 | 3 | 10 | 16 | 5 |
| Ovary | 45 | 17 | 4 | 6 | 1 | 14 | 3 |
| Rectum | 44 | 10 | 2 | 2 | 4 | 23 | 3 |
| Stomach | 63 | 8 | 8 | 3 | 5 | 35 | 4 |
| Thyroid | 42 | 10 | 2 | 14 | 7 | 8 | 1 |
| Other | 342 | 139 | 15 | 26 | 39 | 85 | 38 |

## TABLE 3

### HAWAII TUMOR REGISTRATIONS
### RACE AND AGE

### MALE

### STATE OF HAWAII, 1980

| AGE | Total All Races | RACE | | | | | |
|---|---|---|---|---|---|---|---|
| | | Caucasian | Chinese | Filipino | Hawaiian | Japanese | Other |
| Total All Ages | 1,453 | 499 | 94 | 160 | 172 | 434 | 94 |
| 0 - 1 Years | 1 | - | - | - | 1 | - | - |
| 1 - 4 Years | 7 | 2 | - | - | 2 | - | 3 |
| 5-14 Years | 9 | 2 | 1 | - | 2 | 1 | 3 |
| 15-24 Years | 30 | 14 | 1 | 1 | 6 | 3 | 5 |
| 25-34 Years | 32 | 18 | 4 | 1 | 4 | 4 | 1 |
| 35-44 Years | 68 | 24 | 2 | 4 | 12 | 18 | 8 |
| 45-54 Years | 162 | 52 | 10 | 12 | 23 | 50 | 15 |
| 55-64 Years | 364 | 143 | 21 | 15 | 58 | 101 | 26 |
| 65-74 Years | 428 | 145 | 28 | 74 | 44 | 121 | 16 |
| 75 + Years | 346 | 97 | 27 | 53 | 20 | 135 | 14 |
| Unknown | 6 | 2 | - | - | - | 1 | 3 |

## TABLE 4

### HAWAII TUMOR REGISTRATIONS
### RACE AND AGE

### FEMALE

### STATE OF HAWAII, 1980

| AGE | Total All Races | RACE | | | | | |
|---|---|---|---|---|---|---|---|
| | | Caucasian | Chinese | Filipina | Hawaiian | Japanese | Other |
| Total All Ages | 1,316 | 477 | 94 | 98 | 146 | 377 | 124 |
| 0 - 1 Years | 2 | - | - | - | 1 | - | 1 |
| 1 - 4 Years | 9 | 2 | - | - | 1 | 1 | 5 |
| 5-14 Years | 6 | - | - | 1 | - | 2 | 3 |
| 15-24 Years | 43 | 15 | 3 | - | 5 | 7 | 13 |
| 25-34 Years | 108 | 48 | 1 | 16 | 10 | 12 | 21 |
| 35-44 Years | 153 | 49 | 14 | 14 | 33 | 28 | 15 |
| 45-54 Years | 192 | 57 | 14 | 26 | 15 | 66 | 14 |
| 55-64 Years | 315 | 105 | 21 | 15 | 38 | 113 | 23 |
| 65-74 Years | 257 | 108 | 26 | 11 | 32 | 67 | 13 |
| 75 + Years | 223 | 93 | 15 | 15 | 11 | 81 | 8 |
| Unknown | 8 | - | - | - | - | - | 8 |

TABLE 5

HAWAII TUMOR REGISTRATIONS, RECENT YEARS

VITAL STATUS

MALE

STATE OF HAWAII

| VITAL STATUS | YEAR OF DIAGNOSIS | | | |
|---|---|---|---|---|
| | 1977 | 1978 | 1979 | 1980 |
| Alive, no cancer reported | 326 | 399 | 443 | 546 |
| Alive, cancer present | 68 | 103 | 138 | 228 |
| Alive, cancer status unknown | 81 | 85 | 67 | 50 |
| Expired, no cancer present | 52 | 43 | 52 | 24 |
| Expired, cancer present | 755 | 696 | 668 | 602 |
| Expired, cancer status unknown | 20 | 11 | 6 | 3 |
| Total | 1,302 | 1,337 | 1,374 | 1,453 |

TABLE 6

HAWAII TUMOR REGISTRATIONS, RECENT YEARS

VITAL STATUS

FEMALE

STATE OF HAWAII

| VITAL STATUS | YEAR OF DIAGNOSIS | | | |
|---|---|---|---|---|
| | 1977 | 1978 | 1979 | 1980 |
| Alive, no cancer reported | 582 | 568 | 694 | 838 |
| Alive, cancer present | 44 | 64 | 88 | 110 |
| Alive, cancer status unknown | 100 | 80 | 77 | 46 |
| Expired, no cancer present | 32 | 34 | 27 | 14 |
| Expired, cancer present | 455 | 435 | 428 | 307 |
| Expired, cancer status unknown | 5 | 7 | 10 | 1 |
| Total | 1,218 | 1,188 | 1,324 | 1,316 |

### TABLE 7

### TUMOR STATUS IN LIVING PATIENTS, RECENT YEARS

### MALE

### STATE OF HAWAII

| TUMOR STATUS | YEAR OF DIAGNOSIS | | | |
|---|---|---|---|---|
| | 1977 | 1978 | 1979 | 1980 |
| No evidence of disease | 326 | 399 | 443 | 546 |
| Residual disease | 22 | 37 | 58 | 103 |
| Recurrent disease | 4 | 7 | 12 | 20 |
| Metastatic disease | 37 | 53 | 62 | 101 |
| Tumor status unknown | 81 | 85 | 67 | 50 |
| Other cancer present | 5 | 6 | 6 | 4 |
| Total | 475 | 587 | 648 | 824 |

### TABLE 8

### TUMOR STATUS IN LIVING PATIENTS, RECENT YEARS

### FEMALE

### STATE OF HAWAII

| TUMOR STATUS | YEAR OF DIAGNOSIS | | | |
|---|---|---|---|---|
| | 1977 | 1978 | 1979 | 1980 |
| No evidence of disease | 582 | 568 | 694 | 838 |
| Residual disease | 11 | 16 | 19 | 35 |
| Recurrent disease | 5 | 6 | 12 | 12 |
| Metastatic disease | 25 | 37 | 51 | 58 |
| Tumor status unknown | 100 | 80 | 77 | 46 |
| Other cancer present | 3 | 5 | 6 | 5 |
| Total | 726 | 712 | 859 | 994 |

### TABLE 9

### PERFORMANCE STATUS OF LIVING CANCER PATIENTS, RECENT YEARS

### MALE

### STATE OF HAWAII

| PERFORMANCE STATUS | YEAR OF DIAGNOSIS | | | |
|---|---|---|---|---|
| | 1977 | 1978 | 1979 | 1980 |
| Normal activity | 320 | 401 | 463 | 536 |
| Limited to light work | 10 | 17 | 17 | 50 |
| Ambulatory, no work | 9 | 12 | 6 | 27 |
| Some nursing care | 1 | 2 | 3 | 4 |
| Bedridden | - | 3 | - | 2 |
| Performance status unknown | 135 | 152 | 159 | 205 |
| Total | 475 | 587 | 648 | 824 |

### TABLE 10

### PERFORMANCE STATUS OF LIVING CANCER PATIENTS, RECENT YEARS

### FEMALE

### STATE OF HAWAII

| PERFORMANCE STATUS | YEAR OF DIAGNOSIS | | | |
|---|---|---|---|---|
| | 1977 | 1978 | 1979 | 1980 |
| Normal activity | 561 | 549 | 683 | 768 |
| Limited to light work | 8 | 13 | 13 | 61 |
| Ambulatory, no work | 11 | 10 | 18 | 33 |
| Some nursing care | - | 1 | - | 7 |
| Bedridden | - | 3 | 1 | 1 |
| Performance status unknown | 146 | 136 | 144 | 124 |
| Total | 726 | 712 | 859 | 994 |

# HAWAII HEALTH SURVEILLANCE PROGRAM

* * * * * * * * * *

NOTE: Due to lag time in processing, information on 1981 survey data are presently not available. When the 1981 data becomes available, it will be published as an issue of the Research and Statistics Report Series.

* * * * * * * * * *

The Hawaii Health Surveillance Program administers a continuous statewide household survey of health and sociodemographic conditions of the state. The survey is conducted as a means of providing Health Department programs and other state and private agencies with statistics for evaluation of health services, programs, and problems. Furthermore, the survey provides demographic information for observing population changes during the intercensal decade.

The households interviewed in the Health Survey are selected systematically from a target population limited to the non-institutional population. During the 1980 period, 6,944 households were selected and 14,407 persons were interviewed. Persons excluded from our sample are those living in military barracks, nursing homes or rest homes, prisons, dormitories, the Island of Niihau, and Kalaupapa Settlement. Because of the exclusion of this group, the health characteristics of the non-institutionalized population can be affected since institutionalization is often contingent upon the health of a person.

The tables which follow are for 1980 data and are shown in six groups. Tables 1-6 show the prevalence and number per 1,000 persons per year of selected chronic conditions by occupation and sex; Tables 7-8 show the incidence and number of acute conditions by occupation; Tables 9-10 show prevalence and number per 1,000 persons per year of selected chronic conditions by marital status; Tables 11-12 show incidence and number of acute conditions by marital status; Tables 13-14 reflect trends from 1976-1980 in the number of chronic conditions per 1,000 persons per year and the number of acute conditions per 100 persons per year.

Tables 15-17 show the prevalence of selected chronic conditions reported as causing a limitation of activity by type or degree of limitation, and the prevalence and rates for selected chronic conditions by limitation of activity status. The limitation of activity question was asked only of persons who reported having at least one chronic condition in the 12 months prior to the month of interview. These people were asked to rate themselves in terms of their health according to a scale of 1 to 4. The scale was represented as follows: 1=Not Able To Work At All; 2=Able To Work But Limited In Type Or Amount of Work; 3=Able To Work But Limited In Type Or Amount Of Other Activity; 4=Not Limited In Any Way.

TABLE 1

PREVALENCE OF CHRONIC CONDITIONS
BY OCCUPATION, 1980

| | TOTAL | PROFESSIONAL, TECHNICAL | FARMERS AND FARM MANAGERS | MANAGERS, OFFICIALS, PROPRIETORS | CLERICAL WORKERS | SALES WORKERS | CRAFTSMEN, FOREMEN | OPERATIVES | PRIVATE HOUSEHOLD WORKERS | SERVICE WORKERS | FARM LABORERS/ FOREMEN | LABORERS EXCEPT FARM | MILITARY | OCCUPATION NOT REPORTED |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HEART CONDITION | 4974 | 737 | 119 | 1108 | 764 | 496 | 314 | 125 | --- | 840 | 19 | 201 | 251 | --- |
| IMP.-BACK/SPINE | 17321 | 1754 | 82 | 1932 | 1590 | 1544 | 3052 | 1348 | 315 | 3951 | 266 | 794 | 670 | 23 |
| HBP W/O HEART INB. | 33446 | 4757 | 215 | 4987 | 5037 | 2797 | 4720 | 2813 | 316 | 4860 | 700 | 1557 | 560 | 129 |
| ARTHRITIS/ RHEUMATISM | 7960 | 1098 | 64 | 1006 | 1535 | 678 | 1120 | 221 | 23 | 1540 | 51 | --- | 463 | 161 |
| HEARING IMPAIRMENT | 9272 | 887 | 210 | 1376 | 1413 | 468 | 1834 | 580 | 23 | 986 | 23 | 374 | 1075 | 23 |
| ASTHMA W OR W/O HAY FEVER | 8351 | 1196 | 67 | 873 | 1488 | 559 | 722 | 340 | 18 | 1746 | 231 | 372 | 419 | 320 |
| DIABETES | 7216 | 1083 | 51 | 906 | 1074 | 327 | 998 | 1147 | 51 | 983 | 18 | 398 | --- | 180 |
| MENTAL AND NERVOUS CONDITION | 2745 | 335 | --- | 398 | 497 | 299 | 124 | 289 | --- | 393 | 65 | 94 | 251 | --- |
| VISUAL IMPAIRMENT | 3162 | 358 | 46 | 237 | 835 | 371 | 331 | 404 | 41 | 371 | --- | --- | 168 | --- |
| MALIGNANT NEOPLASMS | 2317 | 232 | --- | 459 | 420 | 209 | 168 | 125 | --- | 283 | 103 | 65 | 253 | --- |
| CHRONIC AND ALLERGIC SKIN | 7270 | 1551 | 41 | 1014 | 650 | 625 | 901 | 463 | --- | 630 | 46 | 295 | 1031 | 23 |
| CHRONIC SINUSITIS | 11275 | 1757 | --- | 1477 | 2355 | 720 | 1068 | 762 | 41 | 1279 | --- | 111 | 1705 | --- |
| HAY FEVER W/O ASTHMA | 26082 | 6197 | 51 | 3077 | 4587 | 2773 | 1941 | 1158 | 102 | 2716 | 74 | 402 | 2897 | 107 |
| STOMACH ULCER | 4721 | 511 | --- | 936 | 1045 | 287 | 339 | 193 | --- | 519 | 74 | 270 | 547 | --- |
| BRONCHITIS/ EMPHYSEMA | 3216 | 243 | 23 | 720 | 751 | --- | 260 | 158 | 23 | 353 | 19 | 274 | 168 | 224 |
| BENIGN AND UNSPEC. NEOPLASM | 3124 | 779 | 23 | 314 | 315 | 147 | 401 | 338 | 96 | 488 | 23 | --- | 149 | 51 |
| HEMORRHOIDS | 8189 | 1750 | 18 | 1400 | 1323 | 317 | 574 | 279 | 142 | 1175 | 41 | 36 | 1134 | --- |
| THYROID/GOITER | 2615 | 147 | --- | 312 | 796 | 289 | 180 | 84 | --- | 608 | --- | 199 | --- | --- |
| VARICOSE VEINS | 1237 | 257 | --- | 41 | 165 | 142 | 84 | 102 | --- | 339 | 23 | 84 | --- | --- |
| GOUT | 4953 | 233 | 36 | 874 | 265 | 492 | 1029 | 934 | --- | 600 | 188 | 174 | 128 | --- |
| OTHER | 57713 | 8492 | 475 | 7581 | 8127 | 4476 | 6893 | 3310 | 454 | 9826 | 807 | 1891 | 5188 | 193 |

## TABLE 2

## NUMBER OF SELECTED CHRONIC CONDITIONS PER 1,000 PERSONS PER YEAR BY OCCUPATION, 1980

| | TOTAL | PROFESSIONAL, TECHNICAL | FARMERS AND FARM MANAGERS | MANAGERS, OFFICIALS, PROPRIETORS | CLERICAL WORKERS | SALES WORKERS | CRAFTSMEN, FOREMEN | OPERATIVES | PRIVATE HOUSEHOLD WORKERS | SERVICE WORKERS | FARM LABORERS/ FOREMEN | LABORERS EXCEPT FARM | MILITARY | OCCUPATION NOT REPORTED |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HEART CONDITION | 12.0 | 11.9 | [illegible].4 | 25.2 | 11.2 | 13.9 | 6.7 | 4.7 | --- | 13.2 | 3.1 | 11.3 | 7.2 | --- |
| IMP.-BACK/SPINE | 41.9 | 28.3 | 40.8 | 43.9 | 23.3 | 43.3 | 65.3 | 50.6 | 187.0 | 62.0 | 43.6 | 44.8 | 19.2 | 5.3 |
| HBP W/O HEART INV. | 80.9 | 76.7 | 107.2 | 113.4 | 73.9 | 78.5 | 101.0 | 105.7 | 187.4 | 76.3 | 114.6 | 87.8 | 16.0 | 29.9 |
| ARTHRITIS/ RHEUMATISM | 19.2 | 17.7 | 31.8 | 22.9 | 22.5 | 19.0 | 24.0 | 8.3 | 13.6 | 24.2 | 8.3 | --- | 13.3 | 37.2 |
| HEARING IMPAIRMENT | 22.4 | 14.3 | 104.4 | 31.3 | 20.7 | 13.1 | 39.3 | 21.8 | 13.6 | 15.5 | 3.8 | 21.1 | 30.8 | 5.3 |
| ASTHMA W OR W/O HAY FEVER | 20.2 | 19.3 | 33.2 | 19.9 | 21.8 | 15.7 | 15.4 | 12.8 | 10.7 | 27.4 | 37.9 | 21.0 | 12.0 | 74.1 |
| DIABETES | 17.4 | 17.4 | 25.2 | 20.6 | 15.8 | 9.2 | 21.4 | 43.1 | 30.0 | 15.4 | 3.0 | 22.5 | --- | 41.7 |
| MENTAL AND NERVOUS CONDITION | 6.6 | 5.4 | --- | 9.1 | 7.3 | 8.4 | 2.7 | 10.8 | --- | 6.2 | 10.6 | 5.3 | 7.2 | 5.3 |
| VISUAL IMPAIRMENT | 7.6 | 5.8 | 22.8 | 5.4 | 12.3 | 10.4 | 7.1 | 15.2 | 24.3 | 5.8 | --- | --- | 4.8 | --- |
| MALIGNANT NEOPLASMS | 5.6 | 3.7 | --- | 10.4 | 6.2 | 5.9 | 3.6 | 4.7 | --- | 4.4 | 16.8 | 3.7 | 7.2 | 24.7 |
| CHRONIC AND ALLERGIC SKIN | 17.6 | 25.0 | 20.4 | 23.1 | 9.5 | 17.5 | 19.3 | 17.4 | --- | 9.9 | 7.5 | 16.7 | 29.5 | --- |
| CHRONIC SINUSITIS | 27.3 | 28.3 | --- | 33.6 | 34.6 | 20.2 | 22.8 | 28.6 | 24.3 | 20.1 | --- | 6.2 | 48.8 | 51.8 |
| HAY FEVER W/O ASTHMA | 63.1 | 99.9 | 25.2 | 70.0 | 67.3 | 77.8 | 41.5 | 43.5 | 60.5 | 42.6 | 12.0 | 22.7 | 82.9 | 11.7 |
| STOMACH ULCER | 11.4 | 8.2 | --- | 21.3 | 15.3 | 8.1 | 7.3 | 7.2 | --- | 8.1 | 12.0 | 15.2 | 15.7 | --- |
| BRONCHITIS/ EMPHYSEMA | 7.8 | 3.9 | 11.4 | 16.4 | 11.0 | --- | 5.6 | 5.9 | 13.6 | 5.5 | 3.1 | 15.5 | 4.8 | 51.8 |
| BENIGN AND UNSPEC. NEOPLASM | 7.5 | 12.6 | 11.4 | 7.1 | 4.6 | 4.1 | 8.6 | 12.7 | 57.2 | 7.7 | 3.8 | --- | 4.3 | 11.7 |
| HEMORRHOIDS | 19.8 | 28.2 | 9.0 | 31.8 | 19.4 | 8.9 | 12.3 | 10.5 | 84.3 | 18.4 | 6.7 | 2.0 | 32.5 | --- |
| THYROID/GOITER | 6.3 | 2.4 | --- | 7.1 | 11.7 | 8.1 | 3.9 | 3.1 | --- | 9.5 | --- | 11.2 | --- | --- |
| VARICOSE VEINS | 3.0 | 4.1 | --- | 0.9 | 2.4 | 4.0 | 1.8 | 3.8 | --- | 5.3 | 3.8 | 4.7 | --- | --- |
| GOUT | 12.0 | 3.7 | 18.0 | 19.9 | 3.9 | 13.8 | 22.0 | 35.1 | --- | 9.4 | 30.8 | 9.8 | 3.7 | --- |
| OTHER | 139.5 | 136.9 | 236.4 | 172.4 | 119.3 | 125.5 | 147.5 | 124.4 | 269.3 | 154.3 | 132.3 | 106.7 | 148.5 | 44.6 |

TABLE 3

PREVALENCE OF SELECTED CHRONIC CONDITIONS
FOR FEMALES BY OCCUPATION, 1980

| | TOTAL | PROFESSIONAL, TECHNICAL | FARMERS AND FARM MANAGERS | MANAGERS, OFFICIALS, PROPRIETORS | CLERICAL WORKERS | SALES WORKERS | CRAFTSMEN, FOREMEN | OPERATIVES | PRIVATE HOUSEHOLD WORKERS | SERVICE WORKERS | FARM LABORERS/ FOREMEN | LABORERS EXCEPT FARM | MILITARY | OCCUPATION NOT REPORTED |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HEART CONDITION | 1435 | 101 | 23 | 130 | 424 | 138 | 84 | --- | --- | 535 | --- | --- | --- | --- |
| IMP.-BACK/SPINE | 6984 | 703 | 23 | 510 | 1184 | 901 | 101 | 337 | 315 | 2841 | 46 | 23 | --- | --- |
| HBP W/O HEART INV. | 12195 | 1776 | 23 | 948 | 3146 | 1489 | 416 | 830 | 316 | 2942 | 95 | 149 | --- | 65 |
| ARTHRITIS/ RHEUMATISM | 4526 | 698 | 41 | 339 | 1416 | 564 | 103 | 208 | 23 | 985 | --- | --- | 84 | 65 |
| HEARING IMPAIRMENT | 1916 | 389 | 18 | 125 | 704 | 96 | 96 | 69 | 23 | 373 | --- | 23 | --- | --- |
| ASTHMA W OR W/O HAY FEVER | 4252 | 401 | 23 | 331 | 1319 | 378 | --- | 102 | 18 | 1280 | 209 | 23 | 168 | --- |
| DIABETES | 2770 | 404 | --- | 301 | 820 | 110 | --- | 372 | 51 | 616 | --- | --- | --- | 96 |
| MENTAL AND NERVOUS CONDITION | 1404 | 197 | --- | 128 | 497 | 175 | --- | 84 | --- | 323 | --- | --- | --- | --- |
| VISUAL IMPAIRMENT | 1199 | 231 | --- | 23 | 637 | 23 | --- | 51 | 41 | 193 | --- | --- | --- | --- |
| MALIGNANT NEOPLASMS | 1072 | 107 | --- | 18 | 305 | 191 | --- | 84 | --- | 199 | 103 | 65 | --- | --- |
| CHRONIC AND ALLERGIC SKIN | 3038 | 693 | 18 | 621 | 437 | 445 | 36 | 155 | --- | 275 | --- | 107 | 251 | --- |
| CHRONIC SINUSITIS | 5209 | 1154 | --- | 626 | 2098 | 277 | 69 | 241 | 41 | 619 | --- | --- | 84 | --- |
| HAY FEVER W/O ASTHMA | 13842 | 4317 | --- | 1235 | 3888 | 1551 | 181 | 300 | 84 | 2011 | --- | --- | 168 | 107 |
| STOMACH ULCER | 1960 | 119 | --- | 128 | 884 | 287 | --- | 54 | --- | 404 | --- | 84 | --- | --- |
| BRONCHITIS/ EMPHYSEMA | 1563 | 51 | --- | 268 | 604 | --- | 84 | 84 | 23 | 330 | --- | 23 | --- | 96 |
| BENIGN AND UNSPEC. ENOPLASM | 1647 | 453 | --- | 19 | 231 | 147 | 51 | 185 | 96 | 465 | --- | --- | --- | --- |
| HEMORRHOIDS | 2761 | 691 | 18 | 210 | 745 | 133 | 37 | 87 | 142 | 578 | 18 | 18 | 84 | --- |
| THYROID/GOITER | 2169 | 147 | --- | --- | 796 | 289 | 180 | 84 | --- | 524 | --- | 149 | --- | --- |
| VARICOSE VEINS | 838 | 161 | --- | 41 | 165 | 142 | --- | 18 | --- | 288 | 23 | --- | --- | --- |
| GOUT | 435 | --- | 18 | 102 | 84 | --- | --- | --- | --- | 231 | --- | --- | --- | --- |
| OTHER | 24050 | 4753 | 123 | 2389 | 6750 | 2384 | 479 | 808 | 454 | 5398 | 77 | 328 | 84 | 23 |

TABLE 4

NUMBER OF CHRONIC CONDITIONS PER 1,000
FEMALES PER YEAR BY OCCUPATION, 1980

| | TOTAL | PROFESSIONAL, TECHNICAL | FARMERS AND FARM MANAGERS | MANAGERS, OFFICIALS, PROPRIETORS | CLERICAL WORKERS | SALES WORKERS | CRAFTSMEN, FOREMEN | OPERATIVES | PRIVATE HOUSEHOLD WORKERS | SERVICE WORKERS | FARM LABORERS/ FOREMEN | LABORERS EXCEPT FARM | MILITARY | OCCUPATION NOT REPORTED |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HEART CONDITION | 8.2 | 3.5 | 76.7 | 9.0 | 7.9 | 7.1 | 29.5 | --- | --- | 14.1 | --- | --- | --- | --- |
| IMP.-BACK/SPINE | 40.1 | 24.1 | 76.7 | 35.3 | 22.2 | 46.5 | 35.3 | 42.7 | 189.1 | 74.8 | 28.1 | 12.8 | --- | --- |
| HBP W/O HEART INV. | 70.0 | 61.0 | 76.7 | 65.6 | 59.0 | 77.0 | 145.3 | 105.4 | 189.4 | 77.4 | 58.1 | 83.6 | --- | 35.6 |
| ARTHRITIS/ RHEUMATISM | 26.0 | 24.0 | 137.4 | 23.5 | 26.5 | 29.1 | 35.8 | 26.4 | 13.7 | 25.9 | --- | --- | 43.4 | 35.6 |
| HEARING IMPAIRMENT | 11.0 | 13.4 | 60.7 | 8.6 | 13.2 | 5.0 | 33.6 | 8.7 | 13.7 | 9.8 | --- | 12.8 | --- | --- |
| ASTHMA W OR W/O HAY FEVER | 24.4 | 13.8 | 76.7 | 22.9 | 24.7 | 19.6 | --- | 12.9 | 10.9 | 33.7 | 128.0 | 12.8 | 86.7 | --- |
| DIABETES | 15.9 | 13.9 | --- | 20.9 | 15.4 | 5.7 | --- | 47.2 | 30.4 | 16.2 | --- | --- | --- | 52.9 |
| MENTAL AND NERVOUS CONDITION | 8.1 | 6.8 | --- | 8.8 | 9.3 | 9.0 | --- | 10.6 | --- | 8.5 | --- | --- | --- | --- |
| VISUAL IMPAIRMENT | 6.9 | 7.9 | --- | 1.6 | 11.9 | 1.2 | --- | 6.4 | 24.6 | 5.1 | --- | --- | --- | --- |
| MALIGNANT NEOPLASM | 6.1 | 3.7 | --- | 1.3 | 5.7 | 9.8 | --- | 10.7 | --- | 5.2 | 62.9 | 36.3 | --- | --- |
| CHRONIC AND ALLERGIC SKIN | 17.4 | 23.8 | 60.7 | 42.9 | 8.2 | 23.0 | 12.6 | 19.7 | --- | 7.2 | --- | 59.8 | 130.1 | --- |
| CHRONIC SINUSITIS | 29.9 | 39.6 | --- | 43.3 | 39.3 | 14.3 | 24.0 | 30.6 | 24.6 | 16.3 | --- | --- | 43.4 | --- |
| HAY FEVER W/O ASTHMA | 79.5 | 148.3 | --- | 85.5 | 72.9 | 80.1 | 63.1 | 38.1 | 50.3 | 52.9 | --- | --- | 86.7 | 58.7 |
| STOMACH ULCER | 11.3 | 4.1 | --- | 8.8 | 16.6 | 14.9 | --- | 6.9 | --- | 10.6 | --- | 47.0 | --- | --- |
| BRONCHITIS/ EMPHYSEMA | 9.0 | 1.7 | --- | 18.5 | 11.3 | --- | 29.5 | 10.7 | 13.7 | 8.7 | --- | 12.8 | --- | 52.9 |
| BENIGN AND UNSPEC.NEOPLASM | 9.5 | 15.6 | --- | 1.3 | 4.3 | 7.6 | 17.7 | 23.5 | 57.8 | 12.2 | --- | --- | --- | --- |
| HEMORRHOIDS | 15.8 | 23.7 | 60.7 | 14.5 | 14.0 | 6.9 | [illegible] | 11.0 | 85.3 | 15.2 | 11.1 | 10.1 | 43.4 | --- |
| THYROID/GOITER | 12.5 | 5.0 | --- | --- | 14.9 | 14.9 | 62.9 | 10.6 | --- | 13.8 | --- | 83.2 | --- | --- |
| VARICOSE VEINS | 4.8 | 5.5 | --- | 2.8 | 3.1 | 7.3 | --- | 2.3 | --- | 7.6 | 14.1 | --- | --- | --- |
| GOUT | 2.5 | --- | 60.7 | 7.1 | 1.6 | --- | --- | --- | --- | 6.1 | --- | --- | --- | --- |
| OTHER | 138.1 | 163.4 | 413.9 | 165.3 | 126.5 | 123.2 | 167.1 | 102.5 | 272.2 | 142.1 | 47.4 | 183.6 | 43.4 | 12.6 |

## TABLE 5

## PREVALENCE OF SELECTED CHRONIC CONDITIONS FOR MALES BY OCCUPATION, 1980

| | TOTAL | PROFESSIONAL, TECHNICAL | FARMERS AND FARM MANAGERS | MANAGERS, OFFICIALS, PROPRIETORS | CLERICAL WORKERS | SALES WORKERS | CRAFTSMEN, FOREMEN | OPERATIVES | PRIVATE HOUSEHOLD WORKERS | SERVICE WORKERS | FARM LABORERS/FOREMEN | LABORERS EXCEPT FARM | MILITARY | OCCUPATION NOT REPORTED |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HEART CONDITION | 3539 | 636 | 96 | 978 | 340 | 358 | 230 | 125 | --- | 305 | 19 | 201 | 251 | --- |
| IMP.-BACK/SPINE | 10338 | 1051 | 59 | 1422 | 405 | 644 | 2951 | 1011 | --- | 1110 | 221 | 771 | 670 | 23 |
| HBP W/O HEART INV. | 21254 | 2981 | 193 | 4039 | 1891 | 1308 | 4304 | 1982 | --- | 1918 | 605 | 1408 | 560 | 65 |
| ARTHRITIS/ RHEUMATISM | 3434 | 400 | 23 | 666 | 119 | 114 | 1018 | 13 | --- | 555 | 51 | --- | 379 | 96 |
| HEARING IMPAIRMENT | 7357 | 498 | 192 | 1251 | 709 | 372 | 1738 | 511 | --- | 614 | 23 | 351 | 1075 | 23 |
| ASTHMA W OR W/O HAY FEVER | 4099 | 795 | 44 | 542 | 169 | 180 | 722 | 238 | --- | 466 | 23 | 349 | 251 | 320 |
| DIABETES | 4445 | 678 | 51 | 605 | 254 | 217 | 998 | 775 | --- | 367 | 18 | 398 | --- | 84 |
| MENTAL AND NERVOUS CONDITION | 1341 | 137 | --- | 271 | --- | 124 | 124 | 205 | --- | 70 | 65 | 94 | 251 | --- |
| VISUAL IMPAIRMENT | 1965 | 128 | 46 | 215 | 198 | 348 | 331 | 353 | --- | 178 | --- | --- | 168 | --- |
| MALIGNANT NEOPLASMS | 1244 | 125 | --- | 441 | 114 | 18 | 168 | 41 | --- | 84 | --- | --- | 253 | --- |
| CHRONIC AND ALLERGIC SKIN | 4233 | 859 | 23 | 394 | 213 | 180 | 865 | 307 | --- | 355 | 46 | 189 | 779 | 23 |
| CHRONIC SINUSITIS | 6066 | 603 | --- | 851 | 257 | 443 | 999 | 521 | --- | 660 | --- | 111 | 1621 | --- |
| HAY FEVER W/O ASTHMA | 12242 | 1880 | 51 | 1842 | 699 | 1223 | 1760 | 858 | 18 | 705 | 74 | 402 | 2730 | --- |
| STOMACH ULCER | 2760 | 392 | --- | 808 | 161 | --- | 339 | 138 | --- | 115 | 74 | 186 | 547 | --- |
| BRONCHITIS/ EMPHYSEMA | 1653 | 193 | 23 | 452 | 147 | --- | 175 | 74 | --- | 23 | 19 | 251 | 168 | 128 |
| BENIGN AND UNSPEC. NEOPLASM | 1476 | 326 | 23 | 295 | 84 | --- | 350 | 153 | --- | 23 | 23 | --- | 149 | 51 |
| HEMORRHOIDS | 5430 | 1060 | --- | 1190 | 578 | 184 | 537 | 193 | --- | 597 | 23 | 18 | 1050 | --- |
| THYROID/GOITER | 447 | --- | --- | 312 | --- | --- | --- | --- | --- | 84 | --- | 51 | --- | --- |
| VARICOSE | 399 | 96 | --- | --- | --- | --- | 84 | 84 | --- | 51 | --- | 84 | --- | --- |
| GOUT | 4519 | 233 | 18 | 772 | 181 | 492 | 1029 | 934 | --- | 370 | 188 | 174 | 128 | --- |
| OTHER | 33664 | 3740 | 352 | 5193 | 1377 | 2092 | 6414 | 2502 | --- | 4427 | 730 | 1563 | 5104 | 170 |

## TABLE 6

## NUMBER OF SELECTED CHRONIC CONDITIONS PER 1,000 MALES PER YEAR BY OCCUPATION, 1980

| | TOTAL | PROFESSIONAL, TECHNICAL | FARMERS AND FARM MANAGERS | MANAGERS, OFFICIALS, PROPRIETORS | CLERICAL WORKERS | SALES WORKERS | CRAFTSMEN, FOREMEN | OPERATIVES | PRIVATE HOUSEHOLD WORKERS | SERVICE WORKERS | FARM LABORERS/ FOREMEN | LABORERS EXCEPT FARM | MILITARY | OCCUPATION NOT REPORTED |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HEART CONDITION | 14.8 | 19.3 | 56.4 | 33.1 | 23.0 | 22.0 | 5.2 | 6.7 | --- | 11.8 | 4.2 | 12.6 | 7.6 | --- |
| IMP.-BACK/SPINE | 43.2 | 31.9 | 34.6 | 48.2 | 27.4 | 39.5 | 67.3 | 54.0 | --- | 43.2 | 49.3 | 48.4 | 20.3 | 9.1 |
| HBP W/O HEART INV. | 88.7 | 90.5 | 112.5 | 136.8 | 128.0 | 80.2 | 98.1 | 105.8 | --- | 74.6 | 135.2 | 88.3 | 17.0 | 25.8 |
| ARTHRITIS/ RHEUMATISM | 14.3 | 12.2 | 13.4 | 22.6 | 8.1 | 7.0 | 23.2 | 0.7 | --- | 21.6 | 11.3 | --- | 11.5 | 38.5 |
| HEARING IMPAIRMENT | 30.7 | 15.1 | 112.0 | 42.4 | 48.0 | 22.8 | 39.6 | 27.3 | --- | 23.9 | 5.1 | 22.0 | 32.6 | 9.1 |
| ASTHMA W OR W/O HAY FEVER | 17.1 | 24.1 | 25.6 | 18.4 | 11.4 | 11.0 | 16.5 | 12.7 | --- | 18.1 | 5.1 | 21.9 | 7.6 | 127.9 |
| DIABETES | 18.6 | 20.6 | 29.6 | 20.5 | 17.2 | 13.3 | 22.8 | 41.4 | --- | 14.3 | 4.0 | 25.0 | --- | 33.5 |
| MENTAL AND NERVOUS CONDITION | 5.6 | 4.2 | --- | 9.2 | --- | 7.6 | 2.8 | 10.9 | --- | 2.7 | 14.5 | 5.9 | 7.6 | --- |
| VISUAL IMPAIRMENT | 8.2 | 3.9 | 26.8 | 7.3 | 13.4 | 21.3 | 7.5 | 18.8 | --- | 6.9 | --- | --- | 5.1 | --- |
| MALIGNANT NEOPLASM | 5.2 | 3.8 | --- | 14.9 | 7.7 | 1.1 | 3.8 | 2.2 | --- | 3.3 | --- | --- | 7.7 | --- |
| CHRONIC AND ALLERGIC SKIN | 17.7 | 26.1 | 13.4 | 13.3 | 14.4 | 11.0 | 19.7 | 16.4 | --- | 13.8 | 10.2 | 11.8 | 23.6 | 9.1 |
| CHRONIC SINUSITIS | 25.3 | 18.3 | --- | 28.8 | 17.4 | 27.2 | 22.8 | 27.8 | --- | 25.7 | --- | 6.9 | 49.1 | --- |
| HAY FEVER W/O ASTHMA | 51.1 | 57.1 | 29.6 | 62.4 | 47.3 | 75.0 | 40.1 | 45.8 | 1000.0 | 27.5 | 16.4 | 25.2 | 82.7 | --- |
| STOMACH ULCER | 11.5 | 11.9 | --- | 27.4 | 10.9 | --- | 7.7 | 7.4 | --- | 4.5 | 16.4 | 11.7 | 16.6 | --- |
| BRONCHITIS/ EMPHYSEMA | 6.9 | 5.8 | 13.4 | 15.3 | 9.9 | --- | 4.0 | 3.9 | --- | 0.9 | 4.2 | 15.8 | 5.1 | 51.0 |
| BENIGN AND UNSPEC. NEOPLASM | 6.2 | 9.9 | 13.4 | 10.0 | 5.7 | --- | 8.0 | 8.2 | --- | 0.9 | 5.1 | --- | 4.5 | 20.2 |
| HEMORRHOIDS | 22.7 | 32.2 | --- | 40.3 | 39.1 | 11.3 | 12.2 | 10.3 | --- | 23.2 | 5.1 | 1.1 | 31.8 | --- |
| THYROID/GOITER | 1.9 | --- | --- | 10.6 | --- | --- | --- | --- | --- | 3.3 | --- | 3.2 | --- | --- |
| VARICOSE VEINS | 1.7 | 2.9 | --- | --- | --- | --- | 1.9 | 4.5 | --- | 2.0 | --- | 5.2 | --- | --- |
| GOUT | 18.9 | 7.1 | 10.6 | 26.1 | 12.2 | 30.2 | 23.4 | 49.8 | --- | 14.4 | 42.0 | 10.9 | 3.9 | --- |
| OTHER | 140.6 | 113.6 | 205.7 | 175.9 | 93.1 | 128.3 | 146.2 | 133.5 | --- | 172.3 | 163.2 | 98.1 | 154.7 | 67.9 |

### TABLE 7

### PREVALANCE OF SELECTED ACUTE CONDITIONS BY OCCUPATION, 1980

| | TOTAL | PROFESSIONAL, TECHNICAL | FARMERS AND FARM MANAGERS | MANAGERS, OFFICIALS, PROPRIETORS | CLERICAL WORKERS | SALES WORKERS | CRAFTSMEN, FOREMEN | OPERATIVES | PRIVATE HOUSEHOLD WORKERS | SERVICE WORKERS | FARM LABORERS/ FOREMEN | LABORERS EXCEPT FARM | MILITARY | OCCUPATION NOT REPORTED |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALL ACUTE CONDITIONS | 604553 | 94706 | 3122 | 54316 | 103157 | 68146 | 48864 | 40896 | 4184 | 90332 | 7860 | 28346 | 53808 | 6815 |
| INFECTIVE PARASITIC DIS. | 38052 | 7084 | --- | 3353 | 4592 | 6679 | 607 | 6107 | --- | 5080 | 607 | --- | 3167 | 776 |
| RESPIRATORY CONDITION | 399812 | 60060 | 2298 | 32606 | 72248 | 40072 | 34306 | 27367 | 2904 | 62299 | 5221 | 16872 | 40585 | 2974 |
| UPPER RESP. CONDITION | 250806 | 39940 | 1498 | 22303 | 51541 | 24464 | 19024 | 18752 | 1156 | 36749 | 3919 | 10760 | 19168 | 1532 |
| INFLUENZA | 135553 | 20120 | 800 | 7939 | 19026 | 14602 | 11131 | 7609 | 1223 | 25116 | 1302 | 5837 | 19406 | 1441 |
| OTHER | 13453 | --- | --- | 2364 | 1681 | 1006 | 4151 | 1006 | 526 | 434 | --- | 275 | 2011 | --- |
| DIGESTIVE SYSTEM CONDITION | 10930 | 1013 | --- | 2322 | 607 | 1006 | 882 | 275 | --- | 2814 | --- | --- | 2011 | --- |
| INJURIES | 92459 | 17580 | 550 | 9370 | 6552 | 8203 | 10596 | 6930 | 1280 | 12554 | 2032 | 9246 | 6034 | 1532 |
| ALL OTHER ACUTE CONDITIONS | 63300 | 8970 | 275 | 6665 | 19157 | 12186 | 2473 | 217 | --- | 7585 | --- | 2228 | 2011 | 1532 |

## TABLE 8

## NUMBER OF ACUTE CONDITIONS PER 100 PERSONS PER YEAR BY OCCUPATION, 1980

| | TOTAL | PROFESSIONAL, TECHNICAL | FARMERS AND FARM MANAGERS | MANAGERS, OFFICIALS, PROPRIETORS | CLERICAL WORKERS | SALES WORKERS | CRAFTSMEN, FOREMEN | OPERATIVES | PRIVATE HOUSEHOLD WORKERS | SERVICE WORKERS | FARM LABORERS/ FOREMEN | LABORERS EXCEPT FARM | MILITARY | OCCUPATION NOT REPORTED |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALL ACUTE CONDITIONS | 146.2 | 152.7 | 155.4 | 123.5 | 151.4 | 191.1 | 104.6 | 180.8 | 248.4 | 141.8 | 128.8 | 159.9 | 154.0 | 157.7 |
| INFECTIVE PARASITIC DIS. | 9.2 | 11.4 | --- | 7.6 | 6.7 | 18.7 | 1.3 | 27.0 | --- | 8.0 | 9.9 | --- | 9.1 | 18.0 |
| RESPIRATORY CONDITION | 96.7 | 96.8 | 114.4 | 74.1 | 106.0 | 112.4 | 73.4 | 121.0 | 172.4 | 97.8 | 85.5 | 95.2 | 116.2 | 68.8 |
| UPPER RESP. CONDITION | 60.6 | 64.4 | 74.6 | 50.7 | 75.6 | 68.6 | 40.7 | 82.9 | 68.6 | 57.7 | 64.2 | 60.7 | 54.9 | 35.5 |
| INFLUENZA | 32.8 | 32.4 | 39.8 | 18.1 | 27.9 | 41.0 | 23.8 | 33.6 | 72.6 | 39.4 | 21.3 | 32.9 | 55.6 | 33.3 |
| OTHER | 3.3 | --- | --- | 5.4 | 2.5 | 2.8 | 8.9 | 4.4 | 31.2 | 0.7 | --- | 1.6 | 5.8 | --- |
| DIGESTIVE SYSTEM CONDITION | 2.6 | 1.6 | --- | 5.3 | 0.9 | 2.8 | 1.9 | 1.2 | --- | 4.4 | --- | --- | 5.8 | --- |
| INJURIES | 22.4 | 28.3 | 27.4 | 21.3 | 9.6 | 23.0 | 22.7 | 30.6 | 76.0 | 19.7 | 33.3 | 52.2 | 17.3 | 35.5 |
| ALL OTHER ACUTE CONDITIONS | 15.3 | 14.5 | 13.7 | 15.2 | 28.1 | 34.2 | 5.3 | 1.0 | --- | 11.9 | --- | 12.6 | 5.8 | 35.5 |

TABLE 9

PREVALENCE OF SELECTED CHRONIC CONDITIONS BY MARITAL STATUS, 1980

| | TOTAL | MARRIED | NEVER* MARRIED | WIDOWED | DIVORCED/ SEPARATED | MAR. STATUS UNKNOWN |
|---|---|---|---|---|---|---|
| HEART CONDITION | 18715 | 12714 | 1505 | 3490 | 1005 | --- |
| IMP.-BACK/SPINE | 30143 | 20122 | 4096 | 2140 | 3701 | 84 |
| HBP W/O HEART INV. | 70281 | 53613 | 3391 | 10324 | 2857 | 96 |
| ARTHRITIS/ RHEUMATISM | 25882 | 16905 | 1087 | 6060 | 1830 | --- |
| HEARING IMPAIRMENT | 24334 | 14514 | 3680 | 4705 | 1435 | --- |
| ASTHMA W OR W/O HAY FEVER | 27739 | 9035 | 16447 | 657 | 1535 | 65 |
| DIABETES | 21387 | 15924 | 1503 | 3193 | 767 | --- |
| MENTAL AND NERVOUS CONDITION | 8729 | 4052 | 2567 | 978 | 1132 | --- |
| VISUAL IMPAIRMENT | 11408 | 6646 | 1309 | 2679 | 774 | --- |
| MALIGNANT NEOPLASM | 5481 | 4219 | 493 | 659 | 110 | --- |
| CHRONIC AND ALLERGIC SKIN | 17522 | 9103 | 6810 | 563 | 812 | 234 |
| CHRONIC SINUSITIS | 19197 | 11979 | 5104 | 960 | 867 | 287 |
| HAY FEVER W/O ASTHMA | 50370 | 27969 | 18725 | 1543 | 1972 | 161 |
| STOMACH ULCER | 7528 | 5216 | 783 | 451 | 1078 | --- |
| BRONCHITIS/ EMPHYSEMA | 9658 | 4153 | 3085 | 1122 | 1298 | --- |
| BENIGN AND UNSPEC. NEOPLASM | 5495 | 4176 | 849 | 238 | 232 | --- |
| HEMORRHOIDS | 14055 | 11019 | 826 | 1604 | 606 | --- |
| THYROID/GOITER | 5411 | 3777 | 432 | 612 | 590 | --- |
| VARICOSE VEINS | 3359 | 2366 | 96 | 455 | 442 | --- |
| GOUT | 9928 | 8534 | 494 | 646 | 254 | --- |
| OTHER | 136636 | 80057 | 30050 | 15931 | 10418 | 180 |

*Includes children and adults never married.

TABLE 10

NUMBER OF CHRONIC CONDITIONS PER 1,000 PERSONS PER YEAR BY MARITAL STATUS, 1980

| | TOTAL | MARRIED | NEVER * MARRIED | WIDOWED | DIVORCED/ SEPARATED | MAR. STATUS UNKNOWN |
|---|---|---|---|---|---|---|
| HEART CONDITION | 20.1 | 29.3 | 3.6 | 94.2 | 26.9 | --- |
| IMP.-BACK/SPINE | 32.4 | 46.4 | 9.7 | 57.8 | 99.0 | 46.1 |
| HBP W/O HEART INV. | 75.6 | 123.7 | 8.1 | 278.8 | 76.4 | 52.9 |
| ARTHRITIS/ RHEUMATISM | 27.8 | 39.0 | 2.6 | 163.6 | 49.0 | --- |
| HEARING IMPAIRMENT | 26.2 | 33.4 | 8.7 | 127.0 | 38.4 | --- |
| ASTHMA W OR W/O HAY FEVER | 29.8 | 20.8 | 39.1 | 17.7 | 4.1 | 35.6 |
| DIABETES | 23.0 | 36.7 | 3.6 | 86.2 | 20.5 | --- |
| MENTAL AND NERVOUS CONDITION | 9.4 | 9.4 | 6.1 | 26.4 | 30.3 | --- |
| VISUAL IMPAIRMENT | 12.3 | 15.3 | 3.1 | 99.3 | 20.7 | --- |
| MALIGNANT NEOPLASM | 5.9 | 9.7 | 1.2 | 17.8 | 2.9 | --- |
| CHRONIC AND ALLERGIC SKIN | 18.8 | 21.0 | 16.2 | 15.2 | 21.7 | 128.4 |
| CHRONIC SINUSITIS | 20.6 | 27.6 | 12.1 | 25.9 | 23.2 | 157.7 |
| HAY FEVER W/O ASTHMA | 54.1 | 64.5 | 44.5 | 41.6 | 52.8 | 88.5 |
| STOMACH ULCER | 8.1 | 12.0 | 1.9 | 12.2 | 28.9 | --- |
| BRONCHITIS/ EMPHYSEMA | 10.4 | 9.6 | 7.3 | 30.3 | 34.7 | --- |
| BENIGN AND UNSPEC. NEOPLASM | 5.9 | 9.6 | 2.0 | 6.4 | 6.2 | --- |
| HEMORRHOIDS | 15.1 | 25.4 | 2.0 | 43.3 | 16.2 | --- |
| THYROID/GOITER | 5.8 | 8.7 | 1.0 | 16.5 | 15.8 | --- |
| VARICOSE VEINS | 3.6 | 5.5 | .2 | 12.3 | 11.8 | --- |
| GOUT | 10.7 | 19.7 | 1.2 | 17.4 | 6.8 | --- |
| OTHER | 146.9 | 184.7 | 71.4 | 430.1 | 278.8 | 99.0 |

*Includes children and adults never married.

## TABLE 11

## PREVALENCE OF ACUTE CONDITIONS BY MARITAL STATUS, 1980

| | TOTAL | MARRIED | NEVER * MARRIED | WIDOWED | DIVORCED/ SEPARATED | MAR. STATUS UNKNOWN |
|---|---|---|---|---|---|---|
| ALL ACUTE CONDITIONS | 1570821 | 618034 | 831655 | 61192 | 58784 | 1156 |
| INFECTIVE PARASITIC DIS. | 94887 | 34036 | 57181 | 2288 | 1382 | --- |
| RESPIRATORY CONDITION | 1060337 | 411805 | 568036 | 38830 | 40510 | 1156 |
| UPPER RESP. CONDITION | 744015 | 268158 | 427289 | 25970 | 21442 | 1156 |
| INFLUENZA | 283147 | 130538 | 126457 | 10548 | 15604 | --- |
| OTHER | 33174 | 13109 | 14290 | 2311 | 3464 | --- |
| DIGESTIVE SYSTEM CONDITION | 29939 | 11156 | 15790 | 2993 | --- | --- |
| INJURIES | 196730 | 80076 | 100700 | 8374 | 7580 | --- |
| ALL OTHER ACUTE CONDITIONS | 188927 | 80960 | 89948 | 8707 | 9312 | --- |

*Includes children and adults never married.

## TABLE 12

## NUMBER OF ACUTE CONDITIONS PER 100 PERSONS PER YEAR BY MARITAL STATUS, 1980

| | TOTAL | MARRIED | NEVER* MARRIED | WIDOWED | DIVORCED/ SEPARATED | MAR. STATUS UNKNOWN |
|---|---|---|---|---|---|---|
| ALL ACUTE CONDITIONS | 168.9 | 142.6 | 197.7 | 165.2 | 157.3 | 63.5 |
| INFECTIVE PARASITIC DIS. | 10.2 | 7.9 | 13.6 | 6.2 | 3.7 | --- |
| RESPIRATORY CONDITION | 114.0 | 95.0 | 135.0 | 104.8 | 108.4 | 63.5 |
| UPPER RESP. CONDITION | 80.0 | 61.9 | 101.6 | 70.1 | 57.4 | 63.5 |
| INFLUENZA | 30.4 | 30.1 | 30.1 | 28.5 | 41.8 | --- |
| OTHER | 3.6 | 3.0 | 3.4 | 6.2 | 9.3 | --- |
| DIGESTIVE SYSTEM CONDITION | 3.2 | 2.6 | 3.8 | 8.1 | --- | --- |
| INJURIES | 21.1 | 18.5 | 23.9 | 22.6 | 20.3 | --- |
| ALL OTHER ACUTE CONDITIONS | 20.3 | 18.7 | 21.4 | 23.5 | 24.9 | --- |

*Includes children and adults never married.

## TABLE 13

### NUMBER OF CHRONIC CONDITIONS PER 1,000 PERSONS PER YEAR (1976-1980)

| | TOTAL 1976-1980 | 1976 | 1977 | 1978 | 1979 | 1980 |
|---|---|---|---|---|---|---|
| TOTAL CHRONIC CONDITIONS | 576.3 | 579.5 | 597.4 | 582.1 | 561.7 | 562.5 |
| HEART CONDITION | 19.3 | 16.0 | 20.3 | 19.1 | 20.9 | 20.1 |
| IMP.-BACK/SPINE | 32.5 | 28.3 | 33.9 | 33.2 | 34.6 | 32.4 |
| HBP W/O HEART INV. | 67.2 | 64.1 | 63.1 | 65.9 | 66.8 | 75.6 |
| ARTHRITIS/ RHEUMATISM | 26.2 | 27.0 | 23.3 | 26.5 | 26.2 | 27.8 |
| HEARING IMPAIRMENT | 24.2 | 21.2 | 20.7 | 26.8 | 26.1 | 26.2 |
| ASTHMA W OR W/O HAY FEVER | 32.7 | 25.7 | 33.3 | 38.4 | 36.5 | 29.8 |
| DIABETES | 22.6 | 22.8 | 22.9 | 22.4 | 22.1 | 23.0 |
| MENTAL AND NERVOUS CONDITION | 11.1 | 11.1 | 12.5 | 12.8 | 9.6 | 9.4 |
| VISUAL IMPAIRMENT | 10.7 | 9.6 | 10.2 | 10.9 | 10.5 | 12.3 |
| MALIGNANT NEOPLASMS | 5.6 | 4.0 | 5.7 | 6.1 | 6.1 | 5.9 |
| CHRONIC AND ALLERGIC SKIN | 22.5 | 21.6 | 24.3 | 24.3 | 23.9 | 18.8 |
| CHRONIC SINUSITIS | 22.0 | 21.3 | 24.7 | 23.4 | 20.0 | 20.6 |
| HAY FEVER W/O ASTHMA | 52.3 | 51.1 | 50.4 | 51.3 | 54.4 | 54.1 |
| STOMACH ULCER | 8.9 | 9.8 | 9.2 | 9.4 | 8.3 | 8.1 |
| BRONCHITIS/ EMPHYSEMA | 10.2 | 10.1 | 11.4 | 10.0 | 9.2 | 10.4 |
| BENIGN AND UNSPEC. NEOPLASM | 6.9 | 7.4 | 7.6 | 6.6 | 6.8 | 5.9 |
| HEMORRHOIDS | 15.1 | 17.7 | 15.0 | 15.2 | 12.3 | 15.1 |
| THYROID/GOITER | 5.8 | 6.6 | 5.9 | 5.3 | 5.2 | 5.8 |
| VARICOSE VEINS | 5.1 | 6.7 | 6.5 | 5.0 | 4.2 | 3.6 |
| GOUT | 11.8 | 13.5 | 11.3 | 12.2 | 11.3 | 10.7 |
| OTHER | 163.6 | 183.9 | 185.4 | 157.3 | 146.6 | 146.9 |

TABLE 14

NUMBER OF ACUTE CONDITIONS PER 100
PERSONS PER YEAR (1976-1980)

| | TOTAL 1976-1980 | 1976 | 1977 | 1978 | 1979 | 1980 |
|---|---|---|---|---|---|---|
| ALL ACUTE CONDITIONS | 171.3 | 139.5 | 164.4 | 173.8 | 209.2 | 168.8 |
| INFECTIVE PARASITIC DIS. | 11.3 | 6.7 | 14.6 | 10.8 | 14.1 | 10.2 |
| RESPIRATORY CONDITION | 113.2 | 88.6 | 104.7 | 118.8 | 138.8 | 114.0 |
| UPPER RESP. CONDITION | 75.9 | 62.1 | 69.7 | 73.0 | 93.7 | 80.0 |
| INFLUENZA | 30.9 | 22.1 | 25.2 | 37.3 | 39.4 | 30.4 |
| OTHER | 6.4 | 4.5 | 9.8 | 8.5 | 5.7 | 3.6 |
| DIGESTIVE SYSTEM CONDITION | 3.8 | 4.4 | 3.7 | 3.7 | 3.7 | 3.2 |
| INJURIES | 21.9 | 20.7 | 20.0 | 19.9 | 27.8 | 21.1 |
| ALL OTHER ACUTE CONDITIONS | 21.2 | 19.1 | 21.4 | 20.6 | 24.8 | 20.3 |

## TABLE 15

## PREVALENCE OF SELECTED CHRONIC CONDITIONS BY LIMITATION OF ACTIVITY STATUS, 1980

| | TOTAL | UNABLE TO CARRY OUT MAJOR ACT. | LMTD IN AMT AND TYPE OF MAJOR ACT. | LMTD BUT NOT IN MAJOR ACT. | NO LIMITATION OF ACTIVITY |
|---|---|---|---|---|---|
| HEART CONDITION | 18715 | 2457 | 2761 | 3885 | 9612 |
| IMP.-BACK/SPINE | 30144 | 1069 | 2591 | 4036 | 22448 |
| HBP W/O HEART INV. | 70282 | 2387 | 3614 | 4513 | 59768 |
| ARTHRITIS/ RHEUMATISM | 25882 | 2401 | 3233 | 4212 | 16036 |
| HEARING IMPAIRMENT | 24335 | 1919 | 2654 | 2661 | 17101 |
| ASTHMA W OR W/O HAY FEVER | 27740 | 497 | 1601 | 1554 | 24088 |
| DIABETES | 21387 | 1372 | 1480 | 1995 | 16540 |
| MENTAL AND NERVOUS CONDTION | 8729 | 1068 | 1124 | 1000 | 5537 |
| VISUAL IMPAIRMENT | 11407 | 1969 | 1768 | 1339 | 6331 |
| MALIGNANT NEOPLASM | 5480 | 768 | 319 | 856 | 3537 |
| CHRONIC AND ALLERGIC SKIN | 17522 | 668 | 682 | 1156 | 15016 |
| CHRONIC SINUSITIS | 19198 | 83 | 714 | 1117 | 17284 |
| HAY FEVER W/O ASTHMA | 50370 | 509 | 893 | 1528 | 47440 |
| STOMACH ULCER | 7529 | 280 | 286 | 606 | 6357 |
| BRONCHITIS/ EMPHYSEMA | 9658 | 705 | 787 | 1226 | 6940 |
| BENIGN AND UNSPEC.NEOPLASM | 5495 | 229 | 87 | 114 | 5065 |
| HEMORRHOIDS | 14055 | 489 | 854 | 1381 | 11331 |
| THYROID/ GOITER | 5411 | 114 | 183 | 694 | 4419 |
| VARICOSE VEINS | 3358 | --- | 419 | 519 | 2420 |
| GOUT | 9927 | 381 | 664 | 1315 | 7567 |
| OTHER | 136133 | 13896 | 14166 | 15357 | 92714 |

## TABLE 16

### LIMITATION OF ACTIVITY STATUS PER 1,000 PERSONS PER YEAR FOR SELECTED CHRONIC CONDITIONS, 1980

| | TOTAL | UNABLE TO CARRY OUT MAJOR ACT. | LMTD IN AMT AND TYPE OF MAJOR ACT. | LMTD BUT NOT IN MAJOR ACT. | NO LIMITATION OF ACTIVITY |
|---|---|---|---|---|---|
| HEART CONDITION | 58.6 | 204.6 | 163.1 | 176.2 | 35.9 |
| IMP.-BACK/SPINE | 94.5 | 89.0 | 153.1 | 183.1 | 83.7 |
| HBP W/O HEART INV. | 220.3 | 198.7 | 213.5 | 204.7 | 222.9 |
| ARTHRITIS/ RHEUMATISM | 81.1 | 199.9 | 191.0 | 191.1 | 59.8 |
| HEARING IMPAIRMENT | 76.3 | 159.8 | 156.8 | 120.7 | 63.8 |
| ASTHMA W OR W/O HAY FEVER | 86.9 | 41.4 | 94.6 | 70.5 | 89.8 |
| DIABETES | 67.0 | 114.3 | 87.4 | 90.5 | 61.7 |
| MENTAL AND NERVOUS CONDITION | 27.4 | 88.9 | 66.4 | 45.4 | 20.7 |
| VISUAL IMPAIRMENT | 35.7 | 164.0 | 104.5 | 60.7 | 23.6 |
| MALIGNANT NEOPLASM | 17.2 | 63.9 | 18.9 | 38.8 | 13.2 |
| CHRONIC AND ALLERGIC SKIN | 54.9 | 55.6 | 40.3 | 52.4 | 56.0 |
| CHRONIC SINUSITIS | 60.2 | 6.9 | 42.2 | 50.7 | 64.5 |
| HAY FEVER W/O ASTHMA | 157.8 | 42.4 | 52.8 | 69.3 | 176.9 |
| STOMACH ULCER | 23.6 | 23.3 | 16.9 | 27.5 | 23.7 |
| BRONCHITIS/ EMPHYSEMA | 30.3 | 58.7 | 46.5 | 55.6 | 25.9 |
| BENIGN AND UNSPEC. NEOPLASM | 17.2 | 19.1 | 5.1 | 5.2 | 18.9 |
| HEMORRHOIDS | 44.0 | 40.7 | 50.4 | 62.6 | 42.3 |
| THYROID/GOITER | 17.0 | 9.5 | 10.8 | 31.5 | 16.5 |
| VARICOSE VEINS | 10.5 | --- | 24.7 | 23.6 | 9.0 |
| GOUT | 31.1 | 31.7 | 39.2 | 59.7 | 28.2 |
| OTHER | 426.6 | 1157.1 | 836.9 | 696.6 | 345.8 |

## TABLE 17

## PREVALENCE OF SELECTED CHRONIC CONDITIONS REPORTED AS CAUSING LIMITATION OF ACTIVITY BY TYPE OF LIMITATION, 1980

| | TOTAL | UNABLE TO CARRY OUT MAJOR ACT. | LMTD IN AMT AND TYPE OF MAJOR ACT. | LMTD BUT NOT IN MAJOR ACT. |
|---|---|---|---|---|
| HEART CONDITION | 6797 | 1558 | 2384 | 2837 |
| IMP.-BACK/SPINE | 6452 | 845 | 2336 | 3271 |
| HBP W/O HEART INV. | 2385 | 728 | 953 | 704 |
| ARTHRITIS/ RHEUMATISM | 7272 | 1523 | 2415 | 3334 |
| HEARING IMPAIRMENT | 1865 | 491 | 895 | 479 |
| ASTHMA W OR W/O HAY FEVER | 1792 | 96 | 825 | 871 |
| DIABETES | 1762 | 421 | 654 | 687 |
| MENTAL AND NERVOUS CONDITION | 2226 | 821 | 774 | 631 |
| VISUAL IMPAIRMENT | 2595 | 969 | 889 | 737 |
| MALIGNANT NEOPLASM | 1258 | 367 | 265 | 603 |
| CHRONIC AND ALLERGIC SKIN | 935 | 129 | 313 | 493 |
| CHRONIC SINUSITIS | 313 | 65 | 152 | 96 |
| HAY FEVER W/O ASTHMA | 815 | 134 | 178 | 503 |
| STOMACH ULCER | 525 | 115 | 134 | 276 |
| BRONCHITIS/ EMPHYSEMA | 1542 | 416 | 502 | 624 |
| BENIGN AND UNSPEC.NEOPLASM | 165 | 114 | 51 | --- |
| HEMORRHOIDS | 115 | --- | --- | 115 |
| THYROID/GOITER | 180 | --- | 96 | 84 |
| VARICOSE VEINS | 285 | --- | 216 | 69 |
| GOUT | 1125 | 101 | 376 | 648 |
| OTHER | 30107 | 9822 | 9628 | 10542 |

# HAWAII STATE
# HEALTH PLANNING
# AND
# DEVELOPMENT AGENCY

## HAWAII STATE HEALTH PLANNING AND DEVELOPMENT AGENCY

### Annual Summary of Acute, Long Term Care and Specialty Hospital Utilization by County, Hawaii 1975-1980

The State Health Planning and Development Agency (SHPDA) collects information on the utilization of inpatient facilities in the State and prepares an annual summary. The 1975-78 data in this report were obtained by SHPDA directly from each of the inpatient facilities in the State. In 1979, SHPDA initiated a Quarterly Utilization Report which included daily census data from each facility for each type of bed, in addition to other facility statistics. These data were processed and tabulated by the Hawaii Cooperative Health Statistics System (HCHSS) under contract with SHPDA. The HCHSS has a daily census file for four years; 1978, 1979, 1980 and 1981. The detailed data are on computer file and may be accessed by individual request to HCHSS.

The 1975-79 facility data are complete. There are some facilities who have not yet returned their 1980 data. Estimates of utilization for those facilities have been computed based on their past utilization. The estimated figures appear in parentheses ( ). The 1981 data are incomplete and not ready for analysis.

Some of the major concerns about the use of these data are: 1) non-consideration of long term care patients occupying acute beds who are waiting for admission to long term care beds, 2) placement of patients in beds not consistent with their primary diagnosis and 3) non-reporting and inappropriate reporting of utilization of some beds. The effect of including waitlisted patients in the acute bed category tends to increase the acute occupancy, average length of stay and daily census for acute and reduce these numbers for long term care. The effect is similar for inappropriate placement, e.g. where a psychiatric patient is placed in a medical-surgical bed, this would tend to increase the admission, daily census and occupancy for medical-surgical and reduce them for psychiatric beds. Non-reporting or inappropriate reporting of beds also tends to cause errors in occupancy rates, admissions and daily census. The extent to which these problems exist is not known exactly. The number of waitlisted patients fluctuates from day to day and so there are no good yearly estimates of these numbers by county--going back to 1978. The prevalence of the other problems are also unavailable yet it is estimated that they are small--when considering the counties and State as a whole.

### Admissions

The number of admissions is defined as the number of inpatient admissions. A given person could be admitted more than once during a year. The critical care admissions are included in the categories shown. Data on the use rate of critical care beds is available by contacting SHPDA.

The number of admissions multipled by the average length of stay produces the total number of patient days.

### Average Daily Census (ADC)

The average daily census provides the mean number of beds occupied during the year. The average daily census multiplied by 365 gives the total number of patient days per year. The average daily census divided by the bed capacity and multiplying by 100 gives the occupancy rate. (Numbers in parentheses are estimates.)

### Occupancy Rates

As mentioned above, percentage occupancy can be computed by dividing the ADC by the number of licensed beds and multiplying by 100. This provides an idea of the proportion of bed capacity occupied on the average day. As with ADC, this will fluctuate from day to day and by type of bed and place. There are national standards which are felt to indicate optimal bed occupancy levels. If a hospital's occupancy is too high, it may not have adequate capacity to accept new patients. Also, some extra beds are always needed in order to allow for maintenance, etc. Usually high occupancy in long term care beds is more acceptable, i.e., above 95%, since there is less daily fluctuation in daily census. In acute care, particularly where patients are admitted on a non-scheduled basis, e.g., OB, CCU, etc., the optimal occupancy can be lower in order to permit unforseen admissions. For other types of acute beds, an occupancy of about 80-85% is acceptable because admissions can be scheduled if bed capacity is fully utilized on a given day.

In some instances, occupancy may run over 100% because of an overflow situation. This might occur if there are, for example, too many of a given type of patient who must be temporarily assigned to another bed type. Where occupancy rates are very high, this is an indication of an inadequate supply of that type of bed on a given island; where they are low, it is an indication of either an adequate supply or surplus of that type of bed on that island.

### Average Length of Stay (ALOS)

The average length of stay is the average number of days patients remain in the facility per hospital stay. For acute care, this is computed by dividing the total patient days by the number of admissions. For long term care, this is computed dividing the patient days by the number of discharges. This is done because long term care patients remain in a facility for several years.

Length of stay can be thought of as an indicator of either efficiency or seriousness of patient's illness. Where facilities are able to discharge patients in a shorter time, they might be thought of as being more efficient. However, in some instance where patients remain out of a hospital until their condition is more serious or where outpatient care is encouraged for less serious conditions, patients admitted may be required to stay longer.

In addition, in the event that long term care patients are occupying acute beds because they cannot find long term care accomodations, this may tend to increase the acute length of stay--confusing the interpretation. It would be best if, when computing length of stay, waitlisted long term care patients could be omitted from the acute inpatient care data. This has not been done in these data.

## TABLE I

## 1981

## STATE OF HAWAII

## SHPDA RECOGNIZED ACUTE CARE BED CAPACITY

| | MEDICAL/ SURGICAL | CRITICAL CARE[a] | OBSTETRIC | PEDIATRIC | NEONATAL ICU | PSYCH | TOTAL |
|---|---|---|---|---|---|---|---|
| METROPOLITAN | | | | | | | |
| Kaiser | 110 | 16 | 30 | 18 | - | - | 174 |
| Kapiolani | 66 | - | 62 | - | - | - | 128 |
| Children's | - | 12[b] | - | 64 | 12[c] | - | 88 |
| Kuakini | 225 | 25 | - | - | - | - | 250 |
| Queen's | 374 | 22 | 25 | 35 | - | 50 | 506 |
| St. Francis | 230 | 22 | - | 4 | - | - | 256 |
| Straub | 136 | 16 | - | - | - | - | 152 |
| Subtotal | 1141 | 113 | 117 | 121 | 12 | 50 | 1554 |
| SUBURBAN | | | | | | | |
| Castle | 69 | 8 | 14 | - | - | 10 | 101 |
| Kahuku | 10 | 2 | 3 | - | - | - | 15 |
| Pearlridge | 26 | - | 2 | 4 | - | - | 32 |
| Wahiawa | 45 | 4 | 14 | 15 | - | - | 78 |
| Subtotal | 150 | 14 | 33 | 19 | - | 10 | 226 |
| OAHU TOTAL | 1291 | 127 | 150 | 140 | 12 | 60 | 1780 |
| MILITARY | | | | | | | |
| Tripler | 391 | - | 92 | 33 | - | 50 | 566 |
| HAWAII COUNTY | | | | | | | |
| Hilo | 84 | 12 | 18 | 30 | - | 24 | 168 |
| Honokaa | 19 | 2 | 4 | 2 | - | - | 27 |
| Ka'u | 4 | 1 | 2 | - | - | - | 7 |
| Kohala | 6 | - | 4 | - | - | - | 10 |
| Kona | 29 | 6 | 8 | 2 | - | 8 | 53 |
| Subtotal | 142 | 21 | 36 | 34 | - | 32 | 265 |
| MAUI COUNTY | | | | | | | |
| Maui Island | | | | | | | |
| Hana | 4 | - | - | - | - | - | 4 |
| Kula | 4 | - | - | - | - | - | 4 |
| Maui | 87 | 8 | 21 | 12 | - | 14 | 142 |
| Lanai Island | | | | | | | |
| Lanai | 3 | 1 | 1 | - | - | 1 | 6 |
| Molokai Island | | | | | | | |
| Molokai | 8 | - | 4 | 2 | - | 1 | 15 |
| Subtotal | 106 | 9 | 26 | 14 | - | 16 | 171 |
| KAUAI COUNTY | | | | | | | |
| Mahelona | - | - | - | - | - | 9 | 9 |
| Kauai Vet | 29 | 2 | 7 | - | - | - | 38 |
| G.N. Wilcox | 73 | 8 | 9 | 6 | - | - | 96 |
| Subtotal | 102 | 10 | 16 | 6 | - | 9 | 143 |
| N.I. TOTAL | 350 | 40 | 78 | 54 | - | 57 | 579 |
| STATE TOTAL w/o Tripler | 1641 | 167 | 228 | 194 | 12 | 117 | 2359 |
| STATE TOTAL w/ Tripler | 2032 | 167 | 320 | 227 | 12 | 167 | 2925 |

a. Includes coronary and intensive care units
b. Includes six Ped ICU and Ped Intermediate Care
c. 12 neonatal isolettes.

Source: SHPDA January 1982.

## TABLE II

## 1981

## STATE OF HAWAII

## SHPDA RECOGNIZED LONG TERM CARE BED CAPACITY

| | SKILLED NURSING | INTERMEDIATE | SNF/ICF | TOTAL |
|---|---|---|---|---|
| OAHU | | | | |
| Ann Pearl | | 86 | | 86 |
| Arcadia | 48 | | | 48 |
| Beverly Manor | | | 108 | 108 |
| Castle | 35 | | | 35 |
| Convalescent Center | 180 | | | 180 |
| Crawford's | | 68 | | 68 |
| Hale Ho Aloha | | 76 | | 76 |
| Hale Malamalama | | 31 | | 31 |
| Hale Nani | | | 232 | 232 |
| Island Nursing | 42 | | | 42 |
| Kahanaola | 16 | | 24 | 40 |
| Kahuku | 11 | | | 11 |
| Kuakini | 50 | 100 | | 150 |
| Leahi | 98 | 42 | (44) | 140 (184) |
| Leeward | | 50 | | 50 |
| Maluhia | | | 150 | 150 |
| Maunalani | 101 | | | 101 |
| Nuuanu Hale | 76 | | | 76 |
| Rehabilitation Hospital | | 14 | | 14 |
| St. Francis | 52 | | | 52 |
| Wahiawa | 51 | | | 51 |
| Total Oahu | 760 | 467 | 514 (558) | 1741 (1785) |
| HAWAII COUNTY | | | | |
| Life Care Center | | 240 | | 240 |
| Hilo Hospital | 36 | 72 | | 108 |
| Honokaa | 8 | | | 8 |
| Ka'u | 8 | | | 8 |
| Kohala | 4 | | 12 | 16 |
| Kona | | | 26 | 26 |
| Total Hawaii County | 56 | 312 | 38 | 406 |
| MAUI COUNTY | | | | |
| Hale Makua | | 124 | 120 | 244 |
| Kula | | | 94 | 94 |
| Lanai | | | 8 | 8 |
| Molokai | | | 12 | 12 |
| Total Maui County | | 124 | 234 | 358 |
| KAUAI COUNTY | | | | |
| Kauai Veterans | 6 | | | 6 |
| Mahelona | | | 56 | 56 |
| G.N. Wilcox | | | 59 | 59 |
| Total Kauai County | 6 | | 115 | 121 |
| STATE TOTAL | 822 | 903 | 901 (945) | 2626 (2670) |

SOURCE: SHPDA, Jan 1982

## TABLE III

### 1981

### STATE OF HAWAII

### SHPDA RECOGNIZED SPECIALTY CARE BED CAPACITY

| | PSYCH | TB | MR | SNF | ICF/MR | LEPROSY | REHAB | CHILDREN'S ORTHO | M/S | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| Hale Mohalu | | | | | | 21 | | | | 21 |
| Hawaii State | 219 | | | | | | | | | 219 |
| Kalaupapa | | | | | | 24 | | | | 24 |
| Kula | | | | | 8 | | | | | 8 |
| Leahi | 20 | 21 | 12 | | | | | | 5 | 58 |
| Mahelona | | 11 | | | | | | | | 11 |
| Rehab. Hospital | | | | | | | 86 | | | 86 |
| Shriner's | | | | | | | | 40 | | 40 |
| Waimano | — | — | — | 100 | 326 | — | — | — | – | 426 |
| GRAND TOTAL | 239 | 32 | 12 | 100 | 334 | 45 | 86 | 40 | 5 | 893 |

SOURCE: SHPDA Bed Inventory, Jan. 1982

## TABLE IV

### AVERAGE LENGTH OF STAY BY COUNTIES

| | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 |
|---|---|---|---|---|---|---|
| LONG TERM CARE | | | | | | |
| Oahu | 228.1 | 239.8 | 302.7 | 318.4 | 400.4 | 362.8 |
| Hawaii | 88.8 | 122.2 | 114.0 | 145.4 | 274.6 | 239.8 |
| Kauai | 85.0 | 113.1 | 186.1 | 194.4 | 292.7 | 242.7 |
| Tri-Isle | 503.4 | 557.3 | 499.6 | 461.1 | 354.0 | (381.1) |
| Maui | 536.9 | 558.2 | 530.5 | 510.7 | 359.2 | (317.7) |
| Molokai | 55.6 | 379.8 | 69.8 | 113.5 | 322.1 | 409.2 |
| Lanai | 36.0 | 56.2 | 132.5 | 102.1 | ----- | 342.3 |
| TOTAL ACUTE | | | | | | |
| Oahu w/Tripler | 6.2 | 6.8 | 6.6 | 6.8 | ----- | 6.9 |
| Oahu w/o Tripler | 5.9 | 6.4 | 6.3 | 6.4 | 6.7 | 6.5 |
| Hawaii | 4.5 | 4.5 | 4.2 | 4.1 | 3.9 | 3.8 |
| Kauai | 5.4 | 6.1 | 6.3 | 5.7 | 5.7 | 5.2 |
| Tri-Isle | 5.4 | 5.0 | 5.0 | 5.2 | 4.8 | (4.8) |
| Maui | 5.6 | 5.2 | 5.2 | 5.4 | 5.0 | (4.9) |
| Molokai | 4.0 | 3.0 | 2.8 | 2.9 | 2.3 | 2.7 |
| Lanai | 2.5 | 2.6 | 4.1 | 2.3 | 1.6 | 2.3 |
| MEDICAL-SURGICAL | | | | | | |
| Oahu w/ Tripler | 7.5 | 8.0 | 7.6 | 7.7 | --- | 8.1 |
| Oahu w/o Tripler | 6.7 | 7.1 | 7.1 | 7.3 | 8.0 | 7.7 |
| Hawaii | 4.9 | 4.7 | 4.5 | 4.7 | 4.4 | 4.2 |
| Kauai | 5.9 | 5.9 | 6.8 | 6.2 | 7.5 | 6.6 |
| Tri-Isle | 6.2 | 5.6 | 5.7 | 6.0 | 5.7 | (5.7) |
| Maui | 6.3 | 5.8 | 5.9 | 6.2 | 5.9 | (5.8) |
| Molokai | 4.9 | 3.3 | 3.3 | 3.5 | 2.6 | 3.0 |
| Lanai | 2.4 | 2.8 | 5.0 | 2.6 | 1.7 | 2.5 |
| CRITICAL CARE (ICU/CCU) | | | | | | |
| Oahu w/ Tripler | .... | .... | .... | .... | .... | .... |
| Oahu w/o Tripler | .... | .... | .... | .... | 4.6 | 3.8 |
| Hawaii | .... | .... | .... | .... | 2.5 | 2.8 |
| Kauai | .... | .... | .... | .... | 2.4 | 2.6 |
| Tri-Isle | .... | .... | .... | .... | 3.3 | 3.1 |
| Maui | .... | .... | .... | .... | 3.3 | 3.1 |
| Molokai | .... | .... | .... | .... | ---- | ---- |
| Lanai | .... | .... | .... | .... | ---- | ---- |
| OBSTETRIC | | | | | | |
| Oahu w/ Tripler | 3.5 | 3.4 | 3.4 | 3.6 | ---- | 3.4 |
| Oahu w/o Tripler | 3.0 | 3.4 | 3.2 | 3.0 | 3.1 | 3.3 |
| Hawaii | 2.9 | 3.5 | 3.0 | 2.5 | 2.5 | 2.5 |
| Kauai | 2.9 | 2.8 | 2.9 | 2.8 | 2.6 | 2.5 |
| Tri-Isle | 3.0 | 2.8 | 2.8 | 2.9 | 2.2 | 2.2 |
| Maui | 3.0 | 2.9 | 2.9 | 3.0 | 2.3 | 2.2 |
| Molokai | 2.4 | 2.4 | 2.0 | 1.9 | 1.8 | 1.9 |
| Lanai | 2.8 | 2.2 | 2.3 | 1.3 | 1.5 | 2.0 |
| PEDIATRIC | | | | | | |
| Oahu w/ Tripler | 4.8 | 4.9 | 5.0 | 5.0 | ---- | 4.3 |
| Oahu w/o Tripler | 4.6 | 4.7 | 4.7 | 4.5 | 4.0 | 3.9 |
| Hawaii | 3.8 | 4.1 | 3.7 | 3.7 | 3.3 | 3.0 |
| Kauai | 3.3 | 2.4 | 3.6 | 3.6 | 3.1 | 2.8 |
| Tri-Isle | 3.3 | 2.9 | 3.0 | 2.4 | 3.6 | 3.1 |
| Maui | 3.4 | 3.0 | 3.1 | 2.5 | 3.9 | 3.1 |
| Molokai | 2.6 | 2.3 | 1.9 | 1.9 | 2.0 | 2.9 |
| Lanai | .... | .... | .... | .... | .... | .... |
| PSYCHIATRIC | | | | | | |
| Oahu w/Tripler | 10.0 | 10.8 | 10.4 | 10.5 | .... | 12.3 |
| Oahu w/o Tripler | 8.0 | 10.0 | 9.4 | 9.8 | 10.8 | 11.4 |
| Hawaii | 5.5 | 5.6 | 6.0 | 6.3 | 6.6 | 7.8 |
| Kauai | 40.0 | 40.2 | 18.6 | 15.3 | 11.4 | 9.1 |
| Tri-Isle | 5.7 | 5.7 | 4.6 | 3.9 | 6.0 | 7.3 |
| Maui | 5.9 | 5.9 | 4.7 | 4.0 | 6.1 | 7.7 |
| Molokai | 1.5 | 1.3 | 1.4 | 1.9 | 1.4 | 1.6 |
| Lanai | - | - | - | - | - | - |
| MENTALLY RETARDED (State) | 20.4 | 57.7 | 1775.4 | 3350.2 | 2263.0 | 1449.1 |
| SPECIALTY (State) | 70.2 | 61.3 | 59.4 | 52.4 | 129.7 | (129.7) |

FOOTNOTES: ( ) denotes estimates as data incomplete

## TABLE V

## OCCUPANCY RATES BY COUNTIES

| | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 |
|---|---|---|---|---|---|---|
| LONG TERM CARE | | | | | | |
| Oahu | 90.2 | 91.0 | 96.5 | 96.7 | 94.3 | 91.4 |
| Hawaii | 78.8 | 92.5 | 96.1 | 85.2 | 87.3 | 92.9 |
| Kauai | 76.0 | 93.3 | 99.2 | 102.2 | 98.7 | 94.8 |
| Tri-Isle | 96.8 | 96.8 | 97.1 | 68.0 | 79.2 | 87.6 |
| Maui | 98.5 | 98.6 | 99.0 | 67.7 | 79.6 | 89.2 |
| Molokai | 95.1 | 88.4 | 70.8 | 91.7 | 117.7 | 46.6 |
| Lanai | 33.3 | 36.4 | 61.8 | 62.6 | 21.8 | 81.8 |
| TOTAL ACUTE | | | | | | |
| Oahu w/ Tripler | 84.0 | 89.7 | 76.2 | 76.1 | ---- | (76.4) |
| Oahu w/o Tripler | 64.8 | 70.8 | 74.3 | 73.5 | 77.7 | (77.1) |
| Hawaii | 67.7 | 48.5 | 47.4 | 44.1 | 43.2 | 46.0 |
| Kauai | 42.6 | 41.7 | 45.3 | 43.9 | 51.4 | 48.7 |
| Tri-Isle | 58.7 | 55.4 | 57.3 | 56.4 | 51.0 | (57.5) |
| Maui | 67.8 | 63.8 | 66.4 | 66.4 | 61.6 | (63.6) |
| Molokai | 23.3 | 19.3 | 14.1 | 18.4 | 11.1 | 20.8 |
| Lanai | 8.7 | 7.4 | 11.3 | 6.9 | .6 | 2.5 |
| MEDICAL-SURGICAL | | | | | | |
| Oahu w/ Tripler | 78.1 | 79.8 | 76.4 | 84.3 | ---- | (81.6) |
| Oahu w/o Tripler | 71.8 | 72.9 | 76.1 | 74.8 | 81.3 | (81.7) |
| Hawaii | 46.9 | 51.1 | 50.4 | 46.1 | 53.1 | 57.8 |
| Kauai | 42.8 | 41.9 | 45.2 | 42.3 | 53.9 | 49.8 |
| Tri-Isle | 64.6 | 63.0 | 62.4 | 61.2 | 63.0 | (75.7) |
| Maui | 73.6 | 72.6 | 71.2 | 71.7 | 78.9 | (82.4) |
| Molokai | 25.8 | 21.5 | 15.3 | 20.2 | 10.8 | 27.5 |
| Lanai | 8.3 | 7.7 | 13.8 | 8.8 | .9 | 3.5 |
| CRITICAL CARE (ICU/CCU) | | | | | | |
| Oahu w/ Tripler | ---- | ---- | ---- | ---- | ---- | ---- |
| Oahu w/o Tripler | ---- | ---- | ---- | 72.4 | 67.4 | 53.3 |
| Hawaii | ---- | ---- | ---- | 35.7 | 41.6 | 39.6 |
| Kauai | ---- | ---- | ---- | 36.8 | 29.9 | 27.9 |
| Tri-Isle | ---- | ---- | ---- | 45.3 | 50.8 | 51.9 |
| Maui | ---- | ---- | ---- | 45.3 | 57.1 | 58.4 |
| Molokai | ---- | ---- | ---- | 0 | 0 | 0 |
| OBSTETRICS | | | | | | |
| Oahu w/ Tripler | 97.8 | 70.5 | 69.7 | 43.3 | ---- | 63.8 |
| Oahu w/o Tripler | 56.7 | 72.4 | 75.3 | 74.8 | 69.8 | 75.9 |
| Hawaii | 36.4 | 38.7 | 41.5 | 41.1 | 35.6 | 37.7 |
| Kauai | 35.0 | 35.4 | 40.4 | 44.9 | 47.7 | 41.8 |
| Tri-Isle | 27.4 | 27.6 | 31.9 | 32.3 | 29.8 | 28.2 |
| Maui | 27.7 | 28.1 | 33.2 | 33.7 | 31.7 | 32.3 |
| Molokai | 28.1 | 27.6 | 25.1 | 29.0 | 25.0 | 12.9 |
| Lanai | 19.5 | 13.7 | 12.6 | 6.3 | .8 | 4.4 |
| PEDIATRICS | | | | | | |
| Oahu w/ Tripler | 104.5 | 92.1 | 86.8 | 71.5 | ---- | 48.7 |
| Oahu w/o Tripler | 50.3 | 48.1 | 49.6 | 52.0 | 43.4 | 41.1 |
| Hawaii | 31.0 | 30.2 | 23.0 | 27.3 | 21.6 | 18.8 |
| Kauai | ---- | ---- | ---- | 72.8 | 55.8 | 40.1 |
| Tri-Isle | 63.4 | 54.2 | 46.6 | 39.7 | 23.5 | 25.4 |
| Maui | 102.0 | 89.7 | 88.2 | 65.2 | 28.9 | 26.7 |
| Molokai | 14.8 | 9.6 | 6.3 | 7.8 | 7.5 | 17.9 |
| Lanai | ---- | ---- | ---- | ---- | ---- | ---- |
| PSYCHIATRIC | | | | | | |
| Oahu w/ Tripler | 93.4 | [illegible].2 | 79.4 | 73.1 | ---- | 106.1 |
| Oahu w/o Tripler | 109.7 | 89.5 | 101.4 | 102.1 | 119.7 | 114.7 |
| Hawaii | 133.7 | 135.7 | 135.3 | 67.7 | 31.7 | 35.9 |
| Kauai | 37.0 | 24.4 | 67.4 | 47.7 | 51.4 | 36.6 |
| Tri-Isle | 77.1 | 76.8 | 86.3 | 89.8 | 26.7 | 20.0 |
| Maui | 152.6 | 151.9 | 128.5 | 176.2 | 30.3 | 22.5 |
| Molokai | 3.3 | 2.7 | 1.9 | 6.9 | 2.7 | 4.9 |
| Lanai | ---- | ---- | ---- | ---- | ---- | ---- |

FOOTNOTES: ( ) denotes estimates as data incomplete

SHPDA: April 1982

## TABLE VI

## AVERAGE DAILY CENSUS BY COUNTIES

| | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 |
|---|---|---|---|---|---|---|
| LONG TERM | | | | | | |
| Oahu | 1888.3 | 1933.0 | 1414.1 | 1487.3 | 1499.7 | 1591.1 |
| Hawaii | 264.8 | 291.6 | 293.9 | 305.0 | 354.4 | 371.6 |
| Kauai | 104.1 | 112.9 | 120.0 | 123.7 | 119.5 | 114.7 |
| Tri-Isle | 231.3 | 230.8 | 233.0 | 244.7 | 284.2 | (320.7) |
| Maui | 233.6 | 223.3 | 223.8 | 234.2 | 274.3 | (301.4) |
| Molokai | 5.7 | 5.3 | 4.2 | 5.5 | 7.1 | 5.6 |
| Lanai | 2.0 | 2.2 | 4.9 | 5.0 | 1.7 | 6.5 |
| TOTAL ACUTE | | | | | | |
| Oahu w/ Tripler | 1590.2 | 1692.5 | 1664.6 | 1709.8 | 1352.5 | 1763.0 |
| Oahu w/o Tripler | 1096.5 | 1165.1 | 1233.4 | 1278.9 | ------ | 1342.2 |
| Hawaii | 183.5 | 128.2 | 126.5 | 119.4 | 114.5 | 121.8 |
| Kauai | 61.3 | 59.8 | 66.7 | 63.2 | 73.6 | 65.9 |
| Tri-Isle | 107.5 | 100.6 | 103.2 | 101.6 | 90.3 | (95.9) |
| Maui | 101.0 | 95.2 | 98.9 | 96.6 | 87.5 | (92.7) |
| Molokai | 5.8 | 4.8 | 3.5 | 4.6 | 2.8 | 3.1 |
| Lanai | .7 | .6 | .7 | .4 | .04 | .1 |
| MEDICAL-SURGICAL | | | | | | |
| Oahu w/ Tripler | 1257.0 | 1271.3 | 1290.1 | 1347.1 | ----- | 1336.3 |
| Oahu w/o Tripler | 934.4 | 941.9 | 991.3 | 1017.4 | 1017.3 | 1019.0 |
| Hawaii | 92.4 | 95.2 | 95.2 | 87.2 | 75.4 | 82.1 |
| Kauai | 49.3 | 49.5 | 53.3 | 47.3 | 55.0 | 50.8 |
| Tri-Isle | 90.5 | 84.2 | 87.3 | 85.7 | 70.6 | (77.2) |
| Maui | 85.4 | 79.9 | 84.0 | 81.7 | 68.6 | (74.9) |
| Molokai | 4.6 | 3.9 | 2.8 | 3.6 | 1.9 | 2.2 |
| Lanai | .5 | .5 | .6 | .4 | .03 | .1 |
| CRITICAL CARE (ICU/CCU) | | | | | | |
| Oahu w/ Tripler | ---- | ---- | ---- | ---- | ---- | ---- |
| Oahu w/o Tripler | ---- | ---- | ---- | 61.2 | 86.2 | 66.1 |
| Hawaii | ---- | ---- | ---- | 7.5 | 8.7 | 8.3 |
| Kauai | ---- | ---- | ---- | 3.4 | 3.0 | 2.8 |
| Tri-Isle | ---- | ---- | ---- | 3.6 | 4.6 | 4.7 |
| Maui | ---- | ---- | ---- | 3.6 | 4.6 | 4.7 |
| Molokai | ---- | ---- | ---- | ----- | ----- | ----- |
| Lanai | ---- | ---- | ---- | ----- | ----- | ----- |
| OBSTETRICS | | | | | | |
| Oahu w/ Tripler | 197.5 | 165.9 | 177.1 | 150.6 | ----- | 154.3 |
| Oahu w/o Tripler | 101.5 | 101.0 | 113.0 | 110.8 | 104.7 | 113.8 |
| Hawaii | 12.0 | 13.9 | 14.9 | 14.8 | 12.8 | 13.6 |
| Kauai | 5.3 | 5.7 | 6.5 | 7.2 | 7.6 | 6.7 |
| Tri-Isle | 8.2 | 8.3 | 8.6 | 8.7 | 7.2 | 7.3 |
| Maui | 7.5 | 7.6 | 8.0 | 8.1 | 6.6 | 6.8 |
| Molokai | .6 | .6 | .5 | .6 | .5 | .5 |
| Lanai | .2 | .1 | .1 | .1 | .008 | .04 |
| PEDIATRICS | | | | | | |
| Oahu w/ Tripler | 119.5 | 105.8 | 107.1 | 114.3 | ----- | 77.0 |
| Oahu w/o Tripler | 85.0 | 75.4 | 78.4 | 89.5 | 64.2 | 60.9 |
| Hawaii | 11.2 | 10.9 | 8.2 | 9.3 | 7.3 | 6.4 |
| Kauai | 1.0 | .6 | .9 | 4.4 | 3.3 | 2.4 |
| Tri-Isle | 5.7 | 4.9 | 4.7 | 3.6 | 3.8 | 3.6 |
| Maui | 5.1 | 4.5 | 4.4 | 3.3 | 3.5 | 3.2 |
| Molokai | .6 | .4 | .3 | .3 | .3 | .4 |
| Lanai | ----- | ----- | ----- | ----- | ----- | ----- |
| PSYCHIATRIC | | | | | | |
| Oahu w/ Tripler | 93.9 | 90.7 | 90.4 | 97.8 | ----- | 129.4 |
| Oahu w/o Tripler | 47.2 | 44.6 | 50.7 | 61.2 | 119.7 | 82.5 |
| Hawaii | 6.7 | 8.1 | 8.1 | 8.1 | 10.2 | 11.5 |
| Kauai | 5.9 | 4.1 | 6.1 | 4.3 | 4.6 | 3.3 |
| Tri-Isle | 3.1 | 3.1 | 2.6 | 3.6 | 4.3 | 3.2 |
| Maui | 3.1 | 3.0 | 2.6 | 3.5 | 4.2 | 3.1 |
| Molokai | .03 | .03 | .02 | .07 | .02 | .05 |
| Lanai | ----- | ----- | ----- | ----- | ----- | ----- |
| MENTALLY RETARDED (State) | 9.2 | 10.2 | 534.7 | 477.7 | 446.4 | 423.7 |
| SPECIALTY (State) | 364.1 | 396.5 | 353.8 | 322.4 | 359.3 | 373.0 |

FOOTNOTE: ( ) denotes estimates as data incomplete.

SHPDA: April 1982

## TABLE VII

## NUMBER OF ADMISSIONS BY COUNTY

| | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 |
|---|---|---|---|---|---|---|
| LONG TERM CARE | | | | | | |
| Oahu | 1638 | 2077 | 1758 | 1483 | 1367[1] | 1605[2] |
| Hawaii | 777 | 612 | 755 | 759 | 471 | 567 |
| Kauai | 250 | 218 | 194 | 190 | 149 | 173 |
| Tri-Isle | 162 | 176 | 158 | 179 | 287 | (308)[3] |
| Maui | 152 | 176 | 133 | 172 | 279 | (296)[3] |
| Molokai | 3 | 1 | 7 | 3 | 8 | 7 |
| Lanai | 7 | 6 | 18 | 4 | 0 | 5 |
| TOTAL ACUTE | | | | | | |
| Oahu w/ Tripler | 94019 | 90030 | 92528 | 91535 | ----- | 93838 |
| Oahu w/o Tripler | 72508 | 69331 | 72702 | 72386 | 74076 | 75875 |
| Hawaii | 9839 | 10549 | 10623 | 10588 | 10574 | 11599 |
| Kauai | 4107 | 4035 | 4109 | 4517 | 4727 | 4633 |
| Tri-Isle | 7210 | 7188 | 7330 | 7120 | 6801 | (7334)[3] |
| Maui | 6642 | 6672 | 6866 | 6578 | 6359 | (6885)[3] |
| Molokai | 485 | 441 | 403 | 495 | 484 | 426 |
| Lanai | 83 | 75 | 61 | 47 | 8 | 23 |
| MEDICAL-SURGICAL | | | | | | |
| Oahu w/ Tripler | 60786 | 57554 | 61433 | 63887 | ----- | 60284 |
| Oahu w/o Tripler | 49466 | 46531 | 50986 | 50855 | 46655 | 48370 |
| Hawaii | 6839 | 8686 | 7521 | 7508 | 6263 | 7162 |
| Kauai | 3177 | 3135 | 3138 | 3023 | 2690 | 2834 |
| Tri-Isle | 5320 | 5317 | 5385 | 5199 | 4492 | (4983)[3] |
| Maui | 4946 | 4983 | 5082 | 4853 | 4217 | (4700)[3] |
| Molokai | 314 | 284 | 262 | 310 | 269 | 268 |
| Lanai | 60 | 50 | 41 | 36 | 6 | 15 |
| CRITICAL CARE (CCU/ICU) | | | | | | |
| Oahu w/ Tripler | ----- | ----- | ----- | ----- | ----- | ----- |
| Oahu w/o Tripler | ----- | ----- | ----- | ----- | 6361 | 6358 |
| Hawaii | ----- | ----- | ----- | ----- | 1284 | 1089 |
| Kauai | ----- | ----- | ----- | ----- | 447 | 394 |
| Tri-Isle | ----- | ----- | ----- | ----- | 500 | 549 |
| Maui | ----- | ----- | ----- | ----- | 500 | 549 |
| Molokai | ----- | ----- | ----- | ----- | ----- | ----- |
| Lanai | ----- | ----- | ----- | ----- | ----- | ----- |
| OBSTETRICS | | | | | | |
| Oahu w/ Tripler | 20659 | 19735 | 19921 | 16748 | ----- | 16751 |
| Oahu w/o Tripler | 14059 | 12969 | 13416 | 12975 | 12295 | 12799 |
| Hawaii | 1494 | 1519 | 1782 | 1796 | 1836 | 2025 |
| Kauai | 780 | 727 | 773 | 895 | 1052 | 989 |
| Tri-Isle | 1042 | 1071 | 1173 | 1251 | 1171 | 1222 |
| Maui | 935 | 955 | 1064 | 1126 | 1065 | 1112 |
| Molokai | 84 | 91 | 89 | 114 | 104 | 102 |
| Lanai | 23 | 25 | 20 | 11 | 2 | 8 |
| PEDIATRICS | | | | | | |
| Oahu w/ Tripler | 9156 | 7677 | 8040 | 8206 | ----- | 6589 |
| Oahu w/o Tripler | 7108 | 6130 | 6363 | 6901 | 5848 | 5707 |
| Hawaii | 1057 | 947 | 841 | 829 | 808 | 781 |
| Kauai | 96 | 99 | 87 | 486 | 390 | 314 |
| Tri-Isle | 666 | 585 | 570 | 394 | 379 | 419 |
| Maui | 586 | 527 | 523 | 336 | 325 | 374 |
| Molokai | 80 | 58 | 47 | 58 | 54 | 45 |
| Lanai | 0 | 0 | 0 | 0 | 0 | 0 |
| PSYCHIATRIC | | | | | | |
| Oahu w/ Tripler | 3418 | 3035 | 3134 | 3263 | ----- | 3856 |
| Oahu w/o Tripler | 1875 | 1675 | 1937 | 2224 | 2917 | 2641 |
| Hawaii | 449 | 514 | 479 | 455 | 563 | 542 |
| Kauai | 54 | 74 | 111 | 113 | 148 | 132 |
| Tri-Isle | 182 | 215 | 202 | 276 | 259 | 161 |
| Maui | 175 | 207 | 197 | 263 | 252 | 150 |
| Molokai | 7 | 8 | 5 | 13 | 7 | 11 |
| Lanai | ----- | ---- | ----- | ----- | ----- | ----- |

FOOTNOTES:

[1] Oahu's data include Leahi's and Maunalani's fourth quarter only so the County's totals were inflated four times.

[2] Rates reflect bed changes at Maluhia and Kahanaola.

[3] Maui's data reflect estimates due to partial reporting from Kula.

SHPDA: April 1982

# FAMILY HEALTH SERVICES DIVISION

## FAMILY HEALTH SERVICES DIVISION

### SUMMARY

The Family Health Services Division administers a program which is concerned with the provision and promotion of health services to mothers and children, family planning services and community services to the developmentally disabled. Programs are carried out through the Maternal and Child Health Branch, Crippled Children Services Branch, Community Services for the Developmentally Disabled Branch and School Health Services Branch.

The Maternal and Child Health Branch divides its services into three sections: (1) family planning services, (2) maternal and infant services, and (3) children and youth services. The goals of these activities are to assist families to raise healthy, well-adjusted children through public education, parent education, emphasis on preventive measures, and involvement of community leaders in planning activities.

The Family Planning Services Section strives to provide individuals the freedom of choice to determine the number and spacing of their children. In addition a need is seen to help young people develop a responsible attitude toward their roles as parents beginning early in the educational process. The staff of the Office of Family Planning coordinates the statewide efforts of federal, state, and private resources for delivery of quality services, staff education and training, program planning, evaluation, and research. Parent groups, teachers, and young people themselves participate in developing activities. Family planning services were provided to 15,840 women in fiscal year 1981. This is approximately the same number served in fiscal year 1980.

The Maternal and Infant Services Section includes both the Maternity and Infant Care (MIC) Project and the Intensive Infant Care Project. The MIC Project maintains three clinics in geographic areas that have a high prevalence of low income families. These sites are Nanakuli and Waimanalo on Oahu, and Hilo on the Big Island of Hawaii. The clinics offer comprehensive maternity care including prenatal care, postpartum care, and family planning services. Comprehensive pediatric care is given to high-risk, low-income infants for their first year of life. The emphasis in the MIC clinics has been to develop effective programs in parent education, to serve young people as well as low-income families, and lower the incidence of low birth weight newborns in this high-risk population. Table 2 summarizes the activities of the MIC Project clinics during calendar year 1981. There is a continued decrease in the number of deliveries in 1981 (135) compared with 1980 (175).

The Children and Youth Services Section includes the Children and Youth Project; the Child Health Conferences; the Early and Periodic Screening, Diagnosis and Treatment Program; the Preschool Developmental Screening Program; and the Dental Health Project. The Children and Youth Project offers preventive case finding and diagnostic services to any child in Waimanalo younger than 16 years. For low-income children, it offers complete health care, including pediatric care, referral to specialists, hospitalization, dentistry, psychological services, speech services, as well as public health nursing, social casework, and nutrition. A total of 2,120 infants and children were enrolled during the calendar year 1981. This figure is virtually the same as the 2,184 enrolled in 1980. Table 3 indicates the number of patients receiving services.

The Child Health Conferences include medical well-baby clinics, nursing conferences, and pediatric evaluation clinics. Children from birth through five years of age may attend the clinics located throughout the State. Services include health assessment, immunization, childrearing guidance, nutrition, preventive mental health, and referral to other agencies when needed. Child health conferences are supplemented by public health nursing services in the homes, in day care centers, and at nursing stations. A total of 10,405 children were seen in the child health conferences in fiscal year 1981. This is a 6.9 percent increase from the 9,733 children seen in 1980. Table 4 shows the attendance at child health conferences by age and by county. It can be seen that the greatest usage is by infants under one year on the neighbor islands.

The Early and Periodic Screening, Diagnosis and Treatment (EPSDT) Program, conducted throughout the State, is primarily for children 0-21 years of age receiving Medicaid. The screening includes physical and developmental screening, vision-hearing screening, urine screening, testing for anemia, tuberculin skin tests, and immunizations. The staff screened 1,821 children during fiscal year 1981 which is a slight increase from the 1,775 screened in 1980.

The Preschool Developmental Screening Program, which became a Maternal and Child Health Branch activity in October 1975, included vision, hearing, developmental and behavioral-emotional screening. Behavioral and emotional screening is done in collaboration with Children's Mental Health Services Branch. During this year, the primary activity for this program changed.

Instead of providing direct screening services, the activities were directed to gradually decrease the load so that plans could be made to provide training to preschool staffs, public health nurses and other providers to perform their own developmental screening. Referrals were accepted only for second level screening which numbered 999 compared to 1,683 the previous year.

The Crippled Children Services Branch provides diagnostic evaluations to all children who are suspected of having one of the eligible medical conditions (Table 7). Treatment services, to those children who are financially eligible, include medical and surgical treatment, occupational and physical therapy, speech therapy, social work, and nursing services.

During the Fiscal Year 1980-81, 2,000 children and young adults between ages of 0-21 were provided services. Of this total number of clients, 433 were new cases.

The medically eligible conditions included major birth defects such as cleft lip and palate congenital heart disease, orthopedic conditions and spina bifida. There are also programs for severe asthma, rheumatic fever and rheumatic heart disease, surgically correctable eye conditions, hearing impairment, and neurologic disorders.

During the past three years, the Crippled Children Services Branch has served a declining number of clients with eligible conditions (Graph 1). This can be attributed to an increase in medical costs, coupled with decreased funding. As a result, the Crippled Children Services Branch has concentrated on the provision of medical services to clients with more severely handicapping conditions.

The Department of Health, Crippled Children Services Branch, has also provided financial assistance to the medical community for early identification of genetic metabolic disorders (Genetic Counseling and Screening and Cytogenetics).

The Community Services for the Developmentally Disabled Branch coordinates, administers and monitors community-based services to children and adults with developmental disabilities, and their families, which are provided by, or contracted through, the Department of Health. The Branch provides the point of coordination for the continuum of services which are required to facilitate growth and development throughout life. This service continuum begins with early identification, diagnostic and training services in infancy and extends through an array of adult activity programs.

The Child Study Section, through Child Development Clinics, develops, administers and coordinates the activities of the Diagnostic and Evaluation Program for developmentally disabled children. The Section also provided dental services through September 30, 1981. The Child Development Clinic provides intinerant services to the islands of Hawaii, Kauai, Maui and Molokai several times a year. In addition, diagnostic services for children with complex or puzzling conditions are available through the Diagnostic Observation Center which provides a daily program in which the diagnostic evaluation process may take place for over an extended period.

A total of 289 comprehensive diagnostic evaluations were completed during the fiscal year of which 79 were provided via the neighbor island clinics.

The Community Program Section includes the Infant & Child Development Centers and the Community Support Services Unit. The Infant & Child Development Centers provided developmentally disabled or delayed infants and children a comprehensive individualized, developmental training program; families and caretakers are provided services to increase their knowledge, skills, attitudes and confidence needed to provide the optimum environment for their child. Eight-hundred twenty-four children and their families received services during 1980-81; 451 were services in Department of Health programs, and 373 received service from private agencies through contracts with the Department.

The Community Support Services Unit provides direct service through interdisciplinary team assessments and consultation to maintain the developmentally disabled person in the community. Homemaker services are available through the Department and through contracted services. Private agencies provide an array of support services through contracts which are closely monitored by Community Support Services Unit.

Placement and Continuing Services Section provided case management services to 862 mentally retarded persons at the end of fiscal year 1981. Case management services provided by social workers involve acquiring and coordinating various community services and programs to sustain mentally retarded persons in the community, following their adjustments in living and activity situation, advocating on their behalf, and constantly assessing needs to promote their welfare. Case management services were provided to 635 mentally retarded persons on leave or conditionally released from Waimano Training School and Hospital and 227 community referred mentally retarded persons, who were potential for first time admission to the institution. The Director of Health is guardian for 606 of the population on leave from Waimano.

At June 30, 1981 Waimano residents on leave increased to 635 from 626 at the end of last fiscal year. Eighty residents were placed in the community of which 56 were readmitted to the institution within the fiscal year then returned to the community within the same period after rehabilitation. Increases in the leave population by placements were partially offset by discharges and deaths while on leave. Increases in the leave population with severe and profound measured intelligence reflect the functioning of residents to be placed. Growth in population with these levels of measured intelligence is anticipated.

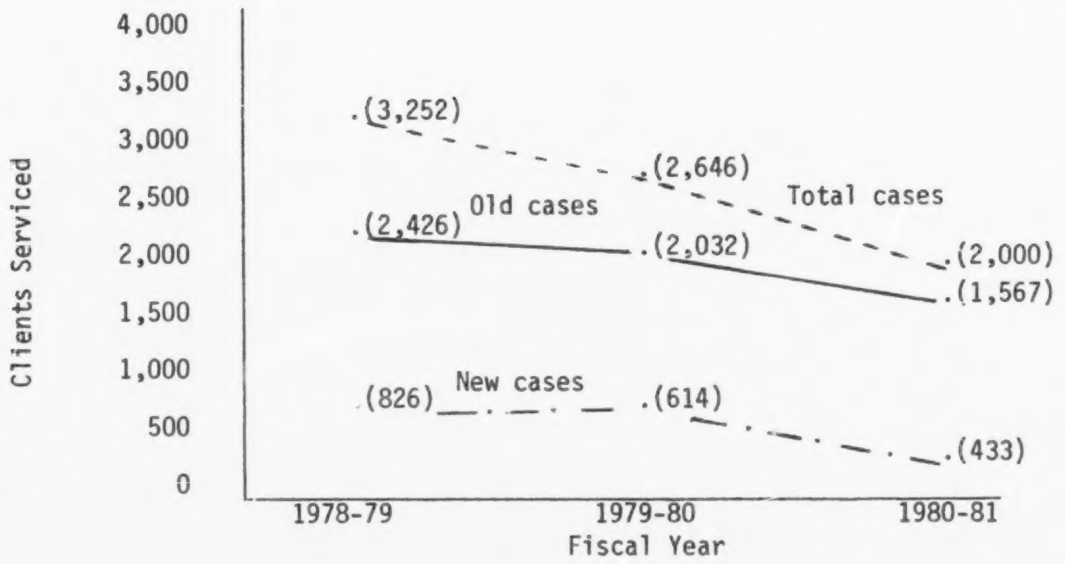
The Branch provides various activity programs to develop personal self-sufficiency, social and work related skills in mentally retarded adults. These services include the Branch operations but are primarily contracted by the Branch. The Branch also provides respite care services through its foster home operations and contractual services.

Under delegated responsibility from Department of Social Services and Housing, this Section develops, recruits, licenses, trains and monitors foster homes to provide care for mentally retarded children in the community. As of June 30, 1980, there are 61 active foster homes. Of this total 30 are operated as group, therapy, teaching or respite homes by private agencies on contract with the Department; the remaining 31 are maintained by Placement & Continuing Services Section.

The School Health Services Branch is responsible for the planning, coordination, development and implementation of statewide school health programs. Services are provided through three sections: 1) School Health Services, 2) Diagnostic Services, and 3) School Health Support Services. The School Health Services Branch provides the leadership and direction needed for the delivery of cost-effective school health services for the more than 200,000 children in schools in Hawaii. The School Health Services Section provides emergency health services for illness and injury, early identification of health conditions, preventive health care, and referral of problems to appropriate resources with follow-up. The School Health Support Services Section provides vision and hearing screening services for early identification of specific sensory deficits in order to prevent interference with learning and adjustment. In addition, the Support Services Section provides occupational and physical therapy evaluation, consultation and therapy services to the handicapped school population in accordance with PL 94-143. The Diagnostic Services Section consists of a team or professional staff which evaluates children (5-10) who are suspected of having specific learning disabilities. The staff assures diagnostic assessments (social, medical, speech-language, psychological, education) and conducts team case conferences to formulate recommendations for parents and teachers. Arrangements are made for appropriate medical referral and follow-up. The tables relate to these programs.

Graph 1

Clients Served by Fiscal Year



### TABLE 1

### WOMEN RECEIVING FAMILY PLANNING SERVICES IN PUBLICLY SUBSIDIZED CLINICS IN HAWAII DURING FISCAL YEAR 1981[a]

| Service Provider | New[b] |  | Continuing[c] |  | Readmissions[d] |  | Unduplicated Patient Count | Total Number of Patient Visits[f] |
|---|---|---|---|---|---|---|---|---|
|  | Number | Percent[e] | Number | Percent | Number | Percent |  |  |
| Hawaii Planned Parenthood | 4,142 | 44 | 4,695 | 47 | 802 | 8 | 9,639 | 17,421 |
| Dept. of Health, Rural Oahu Family Planning Project | 729 | 43 | 852 | 51 | 98 | 6 | 1,679 | 3,002 |
| Dept. of Health, Maternity and Infant Care Project, Nanakuli | 95 | 27 | 231 | 67 | 20 | 6 | 346 | 930 |
| Dept. of Health, Maternity and Infant Care Project, Waimanalo | 63 | 21 | 220 | 73 | 19 | 6 | 302 | 772 |
| Dept. of Health Maternity and Infant Care Project, Hilo | 50 | 25 | 138 | 70 | 10 | 5 | 198 | 731 |
| University of Hawaii | 530 | 38 | 794 | 58 | 55 | 4 | 1,379 | 3,110 |
| Kapiolani Hospital | 821 | 44 | 1,013 | 55 | 20 | 1 | 1,854 | 5,207 |
| Lanai Hospital | 13 | 32 | 25 | 61 | 3 | 1 | 41 | 83 |
| Hale Ho'ola Hou | 296 | 74 | 99 | 25 | 7 | 2 | 402 | 822 |
| State Totals | 6,739 | 43 | 8,067 | 51 | 1,034 | 7 | 15,840 | 32,078[f] |

[a] Provided by Family Planning Data System, Maternal and Child Health Branch.
[b] Patients admitted for the first time in fiscal year 1981.
[c] Patients admitted in 1980 who continued receiving service in fiscal year 1981.
[d] Patients admitted previously in fiscal year 1981 who had not received services for fifteen months or longer.
[e] Percentage of provider's unduplicated total (rounded to whole numbers).
[f] Includes 115 patients total for whom type-of-visit data missing.

### TABLE 2

### NUMBER OF WOMEN AND INFANTS RECEIVING SERVICES AT THE MATERNITY AND INFANT CARE PROJECT BY TYPE OF SERVICE FOR PERIOD JANUARY 1, 1981 - December 31, 1981

| Type of Service | Number of Women and Infants Receiving Services |
|---|---|
| Target Population[a] | 13,450 |
| Prenatal Care | 152 |
| Under 15 Years Old | 3 |
| 15 Years | 2 |
| 16 - 34 Years Old | 145 |
| 35 Years and Over | 2 |
| Total Deliveries | 135 |
| Live Births Under 2501 grams | 9 |
| Infants Admitted for High Risk Infant Care[b] | 14 |
| Family Planning Case Load | 1,153 |
| New Admissions | 351 |
| Admissions Selecting Oral Contraceptives | 211 |
| Admissions Selecting Intrauterine Device | 56 |

[a] Population estimate of women 14-44 years of age living in census tract of Nanakuli (96-98), Waimanalo (113) and Hilo (203-209) x percent of estimated persons 16 and over with income under $15,000 in the corresponding census tract.

[B] High Risk: Having any prenatal, intrapartum, developmental or hereditary condition or other circumstance which increases the risk of survival and/or to normal development. Total number of new admissions.

### TABLE 3

### WAIMANALO CHILDREN AND YOUTH PROJECT ACTIVITIES
### STATE OF HAWAII, CALENDAR YEAR 1981

| Type of Activity | No. of Encounters | No. of Children |
|---|---|---|
| Target Population* | --- | 3,592 |
| Total Number Enrolled Any Part of 1981 | --- | 2,120 |
| Current Enrollment, December 1981 | --- | 1,775 |
| New Enrollees in 1981 | --- | 247 |
| Moved Away | --- | 185 |
| Became Over Aged (16 years old) | --- | 101 |
| Deceased | --- | 2 |
| Medical Services | | |
| Episodic Care | 4,829 | --- |
| Health Assessments | 12,341 | 1,621 |
| Public Health Nursing Services | | |
| Home Visits | 480 | 115 |
| Hospital Visits | 57 | 57 |
| Speech and Hearing Services | | |
| Screening | 760 | --- |
| Therapy | 302 | --- |
| Dental Referrals | --- | 273 |

*Based on adjusted figure for U.S. Census 1970.

### TABLE 4

### INFANTS AND CHILDREN PROVIDED PUBLIC HEALTH NURSING SERVICES
### IN CHILD HEALTH CONFERENCES
### STATE OF HAWAII, FISCAL YEAR 1981

| County | Infants Under 1 Year | Children Over 1 Year |
|---|---|---|
| State of Hawaii | 2,725 | 7,680 |
| Honolulu County | 1,643 | 5,006 |
| Hawaii County | 568 | 1,561 |
| Maui County | 423 | 906 |
| Kauai County | 91 | 207 |

### Table 5

### DISTRIBUTION OF CHILDREN RECEIVING
### SERVICES BY STATUS AND AGE
### CRIPPLED CHILDREN SERVICES BRANCH
(Unduplicated Count)

FISCAL YEAR 1980 - 81

| ISLAND | TOTAL | NEW CASES | OLD CASES | Age of Child in Years | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Under 1 | 1-4 | 5-9 | 10-14 | 15-17 | 18-20 | 21 |
| Oahu | | | | | | | | | | |
| No. | 979 | 240 | 739 | 43 | 263 | 240 | 179 | 151 | 87 | 16 |
| Percent | 49.77 | 51.17 | 49.33 | 50.00 | 52.71 | 47.81 | 42.32 | 54.32 | 58.39 | 53.33 |
| Hawaii | | | | | | | | | | |
| No. | 559 | 155 | 404 | 27 | 147 | 150 | 129 | 69 | 30 | 7 |
| Percent | 28.42 | 33.05 | 26.97 | 31.40 | 29.46 | 29.88 | 30.50 | 24.82 | 20.13 | 23.33 |
| Maui 1/ | | | | | | | | | | |
| No. | 297 | 52 | 245 | 10 | 59 | 75 | 81 | 46 | 21 | 5 |
| Percent | 15.10 | 11.09 | 16.36 | 11.63 | 11.82 | 14.94 | 19.15 | 16.55 | 14.09 | 16.67 |
| Kauai | | | | | | | | | | |
| No. | 132 | 22 | 110 | 6 | 30 | 37 | 34 | 12 | 11 | 2 |
| Percent | 6.71 | 4.69 | 7.34 | 6.98 | 6.01 | 7.37 | 8.04 | 4.32 | 7.38 | 6.67 |
| TOTAL | 1,967 | 469 | 1,498 | 86 | 499 | 502 | 423 | 278 | 149 | 30 |

---

1/ Includes the islands of Lanai & Molokai

### TABLE 6

### STAFF SERVICES PROVIDED BY
### CRIPPLED CHILDREN SERVICES BRANCH STAFF
### BY TYPE OF SERVICE

FISCAL YEAR 1980 - 81

| TYPE OF SERVICE | TOTAL CASES | TOTAL ENCOUNTERS 1/ |
|---|---|---|
| Occupational Therapy | 60 | 1,853 |
| Physical Therapy | 85 | 4,049 |
| Speech Therapy | 374 | 2,447 |
| Social Work | 529 | 4,949 |
| Public Health Nursing | 92 | 2,219 |
| TOTAL | 1,140 | 15,517 |

1/ Actual number of days services provided

## TABLE 7

### DISTRIBUTION OF MEDICAL CONDITIONS AMONG CHILDREN RECEIVING CRIPPLED CHILDREN SERVICES BY DIAGNOSTIC GROUP AND AGE OF CHILD
### STATE OF HAWAII, FISCAL YEAR 1980-81

| DIAGNOSTIC GROUP | TOTAL | TYPE OF CASE |  | AGE OF CHILD IN YEARS |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|
|  |  | NEW | OLD | UNDER 1 | 1-4 | 5-9 | 10-14 | 15-17 | 18-20 | 21 |
| TOTAL | 2,000 | 433 | 1,567 | 92 | 511 | 472 | 442 | 286 | 170 | 27 |
| CARDIAC: |  |  |  |  |  |  |  |  |  |  |
| Congenital Heart | 289 | 53 | 236 | 32 | 71 | 58 | 55 | 41 | 27 | 5 |
| Congenital Great Vessels | 75 | 12 | 63 | 4 | 17 | 11 | 19 | 14 | 10 | -- |
| Rheumatic Fever | 24 | 8 | 16 | -- | -- | 2 | 12 | 8 | 2 | -- |
| Rheumatic Heart Disease | 236 | 16 | 220 | -- | 2 | 19 | 84 | 71 | 52 | 8 |
| Other Heart Disease | 125 | 80 | 45 | 18 | 47 | 32 | 16 | 8 | 3 | 1 |
| CLEFT LIP/PALATE | 96 | 10 | 86 | 8 | 44 | 19 | 16 | 4 | 5 | -- |
| COMMUNICABLE DISORDERS: |  |  |  |  |  |  |  |  |  |  |
| Hearing Impairment | 155 | 44 | 111 | -- | 36 | 49 | 42 | 18 | 7 | 3 |
| Ear Disorder | 126 | 18 | 108 | 1 | 27 | 49 | 35 | 9 | 4 | 1 |
| Speech | 197 | 91 | 106 | 5 | 133 | 49 | 7 | 1 | 1 | 1 |
| GENETIC/CONGENITAL |  |  |  |  |  |  |  |  |  |  |
| Congenital defects | 37 | 11 | 26 | 5 | 21 | 5 | 4 | 1 | 1 | -- |
| Metabolic | 6 | 1 | 5 | -- | 2 | 1 | -- | 1 | 2 | -- |
| Gastro-intestinal | 7 | 2 | 5 | 2 | 2 | 2 | 1 | -- | -- | -- |
| Genito-urinary | 1 | -- | 1 | -- | -- | 1 | -- | -- | -- | -- |
| NEUROLOGY |  |  |  |  |  |  |  |  |  |  |
| Epilepsy | 111 | 10 | 101 | -- | 10 | 34 | 22 | 27 | 13 | 5 |
| Cerebral Palsy | 73 | 5 | 68 | -- | 10 | 29 | 16 | 11 | 7 | -- |
| Congenital Hydrocephalus | 5 | 2 | 3 | 1 | 4 | -- | -- | -- | -- | -- |
| Other Neurological | 12 | 1 | 11 | -- | 2 | 1 | 3 | 1 | 5 | -- |
| MYELODYSPLASIA | 34 | 3 | 31 | 1 | 12 | 6 | 6 | 3 | 6 | -- |
| ORTHOPEDIC: |  |  |  |  |  |  |  |  |  |  |
| Arthritis | 7 | -- | 7 | -- | -- | 2 | 2 | 2 | -- | 1 |
| Scoliosis | 51 | 11 | 40 | -- | 2 | 1 | 25 | 20 | 3 | -- |
| Clubfoot | 49 | 3 | 46 | 2 | 11 | 18 | 10 | 6 | 2 | -- |
| Bone Disease | 5 | 1 | 4 | -- | -- | 2 | 1 | 2 | -- | -- |
| Amputation | 1 | -- | 1 | -- | -- | -- | 1 | -- | -- | -- |
| Polio | 3 | -- | 3 | -- | -- | -- | 1 | 1 | 1 | -- |
| Lower Extremity | 32 | 9 | 23 | 1 | 15 | 10 | 3 | 1 | 2 | -- |
| Congenital Orthopedic | 45 | 3 | 42 | -- | 10 | 15 | 13 | 5 | 2 | -- |
| Muscular Dystrophy | 1 | -- | 1 | -- | -- | -- | 1 | -- | -- | -- |
| Multiple Sclerosis | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Other Orthopedic | 12 | -- | 12 | -- | 1 | 2 | 4 | 1 | 4 | -- |
| PLASTIC: |  |  |  |  |  |  |  |  |  |  |
| Burn | 3 | 1 | 2 | -- | -- | 1 | 2 | -- | -- | -- |
| Ear Deformity | 7 | 1 | 6 | 1 | 1 | -- | 4 | 1 | -- | -- |
| Other | 4 | 1 | 3 | 1 | -- | 1 | 2 | -- | -- | -- |
| PULMONARY: |  |  |  |  |  |  |  |  |  |  |
| Asthma | 85 | 10 | 75 | -- | 11 | 31 | 25 | 14 | 3 | 1 |
| Cystic Fibrosis | 2 | -- | 2 | -- | -- | 1 | -- | -- | 1 | -- |
| VISION: |  |  |  |  |  |  |  |  |  |  |
| Strabismus | 4 | 2 | 2 | -- | 3 | 1 | -- | -- | -- | -- |
| Cataract | 1 | -- | 1 | -- | -- | -- | -- | -- | 1 | -- |
| Other | 2 | -- | 2 | -- | 1 | -- | 1 | -- | -- | -- |
| MISCELLANEOUS: |  |  |  |  |  |  |  |  |  |  |
| Blood Disorders | 4 | -- | 4 | -- | 1 | 2 | -- | 1 | -- | -- |
| Dental Disorders | 3 | -- | 3 | -- | -- | -- | 1 | 1 | -- | 1 |
| Respiratory | 3 | -- | 3 | -- | 1 | 1 | -- | -- | 1 | -- |
| Learning Disability | 2 | -- | 2 | -- | -- | 1 | -- | -- | 1 | -- |
| Mental Retardation | 8 | 1 | 7 | 1 | -- | 2 | 1 | 3 | 1 | -- |
| Infectious | 1 | -- | 1 | -- | -- | 1 | -- | -- | -- | -- |
| Perinatal Complication | 13 | 1 | 12 | 1 | 1 | 1 | 2 | 8 | -- | -- |
| Accidents | 4 | -- | 4 | -- | -- | 2 | 1 | -- | 1 | -- |
| Renal Disorders | 1 | -- | 1 | -- | 1 | -- | -- | -- | -- | -- |
| Other | 2 | 2 | -- | -- | 2 | -- | -- | -- | -- | -- |
| DEFERRED | 19 | 15 | 4 | 6 | 5 | 5 | 2 | 1 | -- | -- |
| NO ABNORMALITY | 17 | 5 | 12 | 2 | 5 | 5 | 2 | 1 | 2 | -- |

## TABLE 8

### STATISTICAL MOVEMENT AMONG CLIENTS AND NUMBER OF CLIENTS SERVED IN PROGRAMS OF THE COMMUNITY SERVICES FOR THE DEVELOPMENTALLY DISABLED BRANCH BY COUNTY a/

### STATE OF HAWAII, FISCAL YEAR 1980-81

| STATUS OF CLIENTS | Total | COUNTY |  |  |  |
|---|---|---|---|---|---|
|  |  | Oahu | Hawaii | Maui | Kauai |
| Clients on Record July 1, 1980 | 696 | 543 | 70 | 53 | 30 |
| Clients Added During Year | 420 | 331 | 45 | 26 | 18 |
| New Clients | 375 | 301 | 37 | 19 | 18 |
| Old Clients | 45 | 30 | 8 | 7 | 0 |
| Clients Removed During Year | 524 | 421 | 45 | 36 | 22 |
| Closed--Moved Out of State | 57 | 51 | 3 | 2 | 1 |
| Withdrawn Before Evaluation | 39 | 34 | 3 | 1 | 1 |
| Closed--Over Age | 6 | 3 | 3 | 0 | 0 |
| Referred to PHD or Other Agency | 337 | 269 | 31 | 21 | 16 |
| Transferred to PCSS | 13 | 7 | 0 | 4 | 2 |
| Transferred to Waimano | 4 | 4 | 0 | 0 | 0 |
| No Further Follow-Up Recommended | 68 | 53 | 5 | 8 | 2 |
| Clients on Record June 30, 1981 | 592 | 453 | 70 | 43 | 26 |
| Clients Served During Year | 1116 | 874 | 115 | 79 | 48 |

a/ Infant Development Programs, Child Development Centers, Child Development Clinics, Diagnostic Observation Center, Dental Clinic

## TABLE 9

### INFANT & CHILD DEVELOPMENT SERVICES PROVIDED BY NUMBER OF CHILDREN SERVED AND GEOGRAPHIC AREA COVERED

STATE OF HAWAII, FISCAL YEAR 1980-1981

| NAME OF PROGRAM | GEOGRAPHIC AREA COVERED | NO. SERVED |
|---|---|---|
| Society for Crippled Children & Adults of Maui County | Maui/Molokai | 117 |
| Easter Seal Society of Hawaii, Inc. | | |
| Kauai | Kauai | 39 |
| Hawaii | Hilo and outlying areas, Pahoa to Waimea | 88 |
| Oahu | Hawaii Kai to Liliha Street | 71 |
| Hawaii Association for Retarded Citizens | Waianae, Oahu | 58 |
| Kona Infant Development Program | Kona Coast | 43 |
| Lanakila Infant Development Program | Kalihi/Palama | 101 |
| Leeward Infant & Child Development Program | Makakilo, Halawa Heights, Aiea, Hickam, Pearl City, Ewa, Waipahu | 123 |
| Wahiawa Infant & Child Development Program | Wahiawa, Haleiwa, Waialua, Mililani, Sunset Beach | 96 |
| Windward Infant & Child Development Program | Windward Coast Waimanalo to Kahuku | 88 |
| | | 824 |

## TABLE 10

### NUMBER OF MENTALLY RETARDED IN CASE MANAGEMENT SERVICES

STATE OF HAWAII, FISCAL YEAR 1981

| | |
|---|---|
| Total | 862 |
| Leave Population, Waimano | 635 |
| Community Referred Population | 227 |

## TABLE 11

### STATISTICAL MOVEMENT OF RESIDENTS FROM WAIMANO TRAINING SCHOOL AND HOSPITAL

STATE OF HAWAII, FISCAL YEAR 1981

| | |
|---|---|
| Residents on Leave at Start of Year | 626 |
| Community Placements | 80 |
| Discharge While on Leave | 8 |
| Deaths on Leave | 7 |
| Returns from Community Placement | 56 |
| Residents on Leave at End of Year | 635 |

## TABLE 12

### LEAVE POPULATION, WAIMANO, JUNE 30, BY MEASURED INTELLIGENCE

STATE OF HAWAII, FISCAL YEAR 1981

| Measured Intelligence | Leave Population on June 30 |
|---|---|
| Total | 635 |
| I. Mild Educable | 133 |
| II. Moderate Trainable | 208 |
| III. Severe | 178 |
| IV. Profound | 104 |
| Borderline | 11 |
| Undetermined Intelligence | 1 |

### TABLE 13
### ACTIVITY PROGRAMS
### STATE OF HAWAII, FISCAL YEAR 1981

| Area | Type of Program | Numbers Served |
|---|---|---|
| | Total | 830 |
| Oahu | Day Activity | 185 |
| | Pre-Vocational | 202 |
| | Work Activity | 119 |
| Hawaii | Day Activity | 42 |
| | Pre-Vocational | 57 |
| | Work Activity | 71 |
| Maui | Day Activity | 63 |
| | Pre-Vocational | 11 |
| | Work Activity | 30 |
| Kauai | Day Activity | 32 |
| | Pre-Vocational | 18 |
| | Work Activity | 0 |

Numbers include DOH operations and contracted programs.

### TABLE 14
### RESPITE CARE PROGRAMS
### NUMBERS SERVED AND GEOGRAPHIC AREAS COVERED
### STATE OF HAWAII, FISCAL YEAR 1981

| Agency | Area | Numbers Served |
|---|---|---|
| | Total | 295 |
| DOH | Oahu | 15 |
| Easter Seal Society | Oahu | 225 |
| ARC, Hilo | Hawaii | 15 |
| ARC, Maui | Maui | 10 |
| ARC, Kauai | Kauai | 30 |

### TABLE 15
### TOTAL NUMBERS OF HEALTH ROOM VISITS, a/
### REASONS FOR VISIT AND DISPOSITION
School Health Services Branch
Department of Health
State of Hawaii
By School Year From 1976-77 Through 1980-81

| | 1976-77 | 1977-78 | 1978-79 | 1979-80 | 1980-81 |
|---|---|---|---|---|---|
| Total visits to health room | 357,428 | 535,021 | 550,299 | 500,437 | 528,146 |
| Reason for visit:<br>(Students Only) | | | | | |
| Illness | (37.90) b/<br>135,470 | (40.86) b/<br>218,587 | (42.02) b/<br>231,229 | (42.20) b/<br>211,204 | (43.88) b/<br>231,748 |
| Injury | (46.62)<br>166,633 | (44.48)<br>237,996 | (42.96)<br>236,401 | (42.88)<br>214,600 | (44.83)<br>236,751 |
| Medication | (5.16)<br>18,453 | (5.30)<br>28,347 | (5.43)<br>29,880 | (5.35)<br>26,791 | (2.33)<br>12,294 |
| TLC | (1.68)<br>6,021 | (1.47)<br>7,848 | (1.39)<br>7,659 | (1.38)<br>6,917 | (2.46)<br>13,007 |
| Non-health | (8.36)<br>29,878 | (7.64)<br>40,885 | (7.96)<br>43,806 | (7.95)<br>39,790 | (6.28)<br>33,163 |
| Disposition:<br>(Students and Staff) | | | | | |
| Sent home | (16.32)<br>58,317 | (18.12)<br>96,971 | (18.71)<br>102,947 | (18.39)<br>92,013 | (19.06)<br>100,666 |
| Returned to class | (81.00)<br>289,523 | (79.92)<br>427,600 | (79.31)<br>436,436 | (79.92)<br>399,957 | (79.16)<br>418,067 |
| Remained in health room | (1.99)<br>7,122 | (1.95)<br>10,450 | (1.98)<br>10,916 | (1.69)<br>8,467 | (1.78)<br>9,413 |

Total health room visits include students and staff.

a/ Numbers are approximate.

b/ Numbers in parenthesis represent percentages of annual health room visits.

## TABLE 16
## NUMBER OF STUDENTS REFERRED TO SCHOOL NURSES

School Health Services Branch
Department of Health
State of Hawaii
School Year 1980-81

| ISLAND | Elementary | Intermediate | High School | TOTAL |
|---|---|---|---|---|
| Oahu | 3,408 | 743 | 802 | 4,953 |
| Hawaii | 246 | 69 | 97 | 412 |
| Maui a/ | 360 | 72 | 58 | 490 |
| Kauai | 42 | 9 | 76 | 127 |
| TOTAL | 4,056 | 893 | 1,033 | 5,982 |

a/ Maui includes the islands of Maui, Molokai and Lanai.

## TABLE 17
## HEALTH PROBLEM SUMMARY LIST a/

School Health Services Branch
Department of Health
State of Hawaii
School Year 1980-81

| CONDITION | DISTRICT | | | | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|
| | Honolulu | Windward | Central | Leeward | Hawaii | Maui | Kauai | |
| Allergies | 1,333 | 1,243 | 1,549 | 1,807 | 1,205 | 590 | 381 | 8,108 |
| Arthritis | 10 | 14 | 8 | 17 | 11 | 4 | 1 | 65 |
| Asthma | 871 | 834 | 944 | 1,396 | 1,190 | 451 | 498 | 6,184 |
| Behavior | 226 | 145 | 81 | 205 | 40 | 13 | 16 | 726 |
| Blood Disorder | 32 | 18 | 27 | 40 | 9 | 22 | 14 | 162 |
| Cardiac | 152 | 155 | 185 | 161 | 124 | 127 | 55 | 959 |
| Cystic Fibrosis | 3 | 1 | 4 | 2 | | 3 | 1 | 14 |
| Diabetes | 20 | 20 | 24 | 22 | 19 | 9 | 4 | 118 |
| Ear Problems | 663 | 693 | 487 | 713 | 449 | 354 | 181 | 3,540 |
| Eye Problems | 281 | 322 | 494 | 301 | 288 | 202 | 116 | 2,004 |
| Genito Urinary Disorders | 31 | 58 | 62 | 52 | 27 | 31 | 11 | 272 |
| Hyperactivity | 47 | 44 | 66 | 56 | 22 | 23 | 6 | 264 |
| Hypertension | 9 | 3 | 8 | 8 | 12 | 3 | 4 | 47 |
| Neoplasm | 4 | 2 | 14 | 8 | 5 | 5 | 4 | 42 |
| Orthopedic | 285 | 245 | 342 | 265 | 218 | 124 | 60 | 1,539 |
| Rheumatic Fever/RHD | 49 | 42 | 19 | 59 | 64 | 29 | 9 | 271 |
| Seizures | 143 | 103 | 114 | 140 | 79 | 66 | 35 | 680 |
| TOTALS | 4,159 | 3,942 | 4,428 | 5,252 | 3,762 | 2,056 | 1,396 | 24,995 |

a/ Numbers are approximate.

## TABLE 18

## REQUESTS FOR ADMINISTRATION OF MEDICATION BY CONDITION AND MEDICATION

School Health Services Branch
Department of Health
State of Hawaii
School Year 1980-81

| CONDITION | # | MEDICATION | PRN | SCHEDULED | STORAGE |
|---|---|---|---|---|---|
| Allergy | 38 | Benadryl | 23 | --- | 1 |
| | | Other Antihistamines | 9 | --- | |
| | | Other | 11 | 1 | 2 |
| Asthma | 29 | Slophyllin | 3 | --- | 1 |
| | | Marax | 4 | --- | --- |
| | | Elixicon | 1 | 3 | --- |
| | | Quibron | 2 | --- | --- |
| | | Inhaler | 6 | --- | --- |
| | | Other | 12 | 4 | 1 |
| Headache, Migraine | 6 | Tylenol | 1 | --- | --- |
| | | Aspirin | 2 | --- | --- |
| | | Other | 3 | --- | --- |
| Hyperactivity | 117 | Ritalin | --- | 113 | 1 |
| | | Cylert | --- | 1 | --- |
| | | Other | 1 | 3 | --- |
| Seizures | 24 | Phenobarbital | --- | 3 | 1 |
| | | Dilantin | --- | 5 | 1 |
| | | Tegretol | --- | 8 | 1 |
| | | Depakene | --- | 7 | --- |
| | | Other | 3 | 7 | --- |
| Other | 13 | Miscellaneous | 2 | 10 | 2 |
| TOTAL | 227 | | 83 | 165 | 11 |

Table 19
REFERRAL SOURCE AND FOLLOW-UP RECOMMENDATIONS OF CHILDREN EVALUATED FOR LEARNING DISABILITY
Diagnostic Services Section, School Health Branch
Department of Health, State of Hawaii
FY July 1980 - June 1981

| REFERRAL SOURCE | a/ LDC | b/ MRE | c/ MRT | d/ EH | REGULAR PLCMT | e/ REGULAR PLCMT W/HELP | MENTAL HEALTH | CASE-WORK | NURSERY SCHOOL | VARIETY CLUB SCHOOL | RETEN-TION | OTHER | RE-EVAL | TOTAL TESTED | NO TESTING | TOTAL REFRD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DOE | | | | | | | | | | | | | | | | |
| Honolulu | 7 | - | - | - | - | 4 | - | - | - | - | - | 1 | - | 12 | 1 | 13 |
| Central | 2 | - | - | - | - | - | - | - | - | - | - | 1 | - | 3 | - | 3 |
| Leeward | 1 | - | - | - | - | - | - | - | - | - | - | - | - | 1 | - | 1 |
| Windward | 5 | - | - | - | - | 2 | 1 | 1 | - | - | 1 | - | - | 10 | 2 | 12 |
| Private Sch. | 10 | - | - | - | 4 | 26 | 9 | 2 | - | - | 1 | - | - | 52 | 2 | 54 |
| Physician | 2 | - | - | - | 1 | 5 | 2 | - | - | - | - | - | - | 10 | 2 | 12 |
| Oahu Presch. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| PS Screening | 13 | - | - | - | 7 | 19 | - | - | - | - | 3 | - | - | 42 | 2 | 44 |
| Parents | 11 | - | - | 1 | 3 | 20 | 8 | - | - | - | 1 | - | - | 44 | 5 | 49 |
| Neigh. Isl. | 9 | - | - | 1 | - | 7 | - | - | - | - | - | - | - | 17 | - | 17 |
| N.I. Presch. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| DOH | 2 | - | - | - | - | - | - | - | - | - | - | - | - | 2 | 1 | 3 |
| Others | - | - | - | - | - | 2 | 2 | - | - | - | - | - | - | 4 | 2 | 6 |
| Sub Total | 62 | - | - | 2 | 15 | 85 | 22 | 3 | - | - | 6 | 2 | - | 197 | 17 | 214 |
| Re-eval | 2 | - | - | - | 1 | 6 | 2 | 1 | - | - | - | - | - | 12 | - | 12 |
| GRAND TOTAL | 64 | - | - | 2 | 16 | 91 | 24 | 4 | - | - | 6 | 2 | - | 209 | 17 | 226 |

a/ LDC - Learning Disability Class
b/ MRE - Mentally Retarded Educable
c/ MRT - Mentally Retarded Trainable
d/ EH - Emotionally Handicapped Class
e/ Regular Placement with Help - tutorial, remedial, speech therapy, or language therapy

Table 20
AGE, SEX DISTRIBUTION AND FOLLOW-UP RECOMMENDATIONS OF CHILDREN EVALUATED FOR LEARNING DISABILITY
Diagnostic Services Section, School Health Branch
Department of Health, State of Hawaii
FY July 1980 - June 1981

| AGE GROUP | SEX | a/ LDC | b/ MRE | c/ MRT | d/ EH | REGULAR PLCMT | e/ REGULAR PLCMT W/HELP | MENTAL HEALTH | CASE-WORK | NURSERY SCHOOL | VARIETY CLUB SCHOOL | RETEN-TION | OTHER | RE-EVAL | TOTAL TESTED | NO TESTING | TOTAL REFRD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 - 4 | M | 2 | - | - | - | 1 | 1 | - | - | - | - | - | 1 | - | 5 | 5 | 10 |
| | F | 2 | - | - | - | - | - | - | - | - | - | - | 1 | - | 3 | - | 3 |
| Subtotal | | 4 | - | - | - | 1 | 1 | - | - | - | - | - | 2 | - | 8 | 5 | 13 |
| 5 - 7 | M | 34 | - | - | 2 | 8 | 41 | 5 | 1 | - | - | 5 | - | - | 96 | 8 | 104 |
| | F | 16 | - | - | - | 3 | 21 | 3 | - | - | - | 1 | - | - | 44 | 1 | 45 |
| Subtotal | | 50 | - | - | 2 | 11 | 62 | 8 | 1 | - | - | 6 | - | - | 140 | 9 | 149 |
| 8 - 10 | M | 7 | - | - | - | 3 | 16 | 8 | 2 | - | - | - | - | - | 36 | 3 | 39 |
| | F | 1 | - | - | - | 1 | 6 | 2 | - | - | - | - | - | - | 10 | - | 10 |
| Subtotal | | 8 | - | - | - | 4 | 22 | 10 | 2 | - | - | - | - | - | 46 | 3 | 49 |
| Over 11 | M | 2 | - | - | - | - | 3 | 5 | 1 | - | - | - | - | - | 11 | - | 11 |
| | F | - | - | - | - | - | 3 | 1 | - | - | - | - | - | - | 4 | - | 4 |
| Subtotal | | 2 | - | - | - | - | 6 | 6 | 1 | - | - | - | - | - | 15 | - | 15 |
| Total By Sex | M | 45 | - | - | 2 | 12 | 61 | 18 | 4 | - | - | 5 | 1 | - | 148 | 16 | 164 |
| | F | 19 | - | - | - | 4 | 30 | 6 | - | - | - | 1 | 1 | - | 61 | 1 | 62 |
| TOTAL TESTED | | 64 | - | - | 2 | 16 | 91 | 24 | 4 | - | - | 6 | 2 | - | 209 | 17 | 226 |

a/ LDC - Learning Disability Class
b/ MRE - Mentally Retarded Educable
c/ MRT - Mentally Retarded Trainable
d/ EH - Emotionally Handicapped Class
e/ Regular Placement with Help - tutorial, remedial, speech therapy, or language therapy

### TABLE 21
### VISION STATISTICS
School Health Services Branch
Department of Health, State of Hawaii
School Year 1980-81

| | Total Number Screened | Number Referred | % Ref. | No. Of Completed Referrals | % Comp. Ref. | No. New Deficit Findings | % New Def. Find. | % Def. Find. Of. No. Screen. | No. New Glasses Prescribed | % New Glasses | % New Glass Of No. Screen | % Over. Ref. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Preschools | 7,065 | 99 | 1% | 81 | 82% | 66 | 81% | 1% | 15. | 23% | 0.2% | 19% |
| Private/Parochial Schools | 2,543 | 107 | 4% | 69 | 64% | 66 | 96% | 3% | 48 | 73% | 2 % | 4% |
| Dept. of Education | 110,031 | 3,285 | 3% | 2,471 | 75% | 2,128 | 86% | 2% | 1,350 | 63% | 1 % | 9% |
| Oahu | 82,648 | 2,398 | 3% | 1,864 | 78% | 1,649 | 88% | 2% | 1,050 | 64% | 1 % | 6% |
| Hawaii | 13,504 | 224 | 2% | 177 | 79% | 163 | 92% | 1% | 110 | 67% | 1 % | 8% |
| Maui | 8,820 | 300 | 3% | 194 | 65% | 143 | 74% | 2% | 85 | 59% | 1 % | 20% |
| Kauai | 5,059 | 363 | 7% | 236 | 65% | 173 | 73% | 3% | 105 | 61% | 2 % | 23% |
| Total | 119,639 | 3,491 | 3% | 2,621 | 75% | 2,260 | 86% | 2% | 1,413 | 63% | 1 % | 9% |

### TABLE 22
### HEARING STATISTICS
School Health Services Branch
Department of Health, State of Hawaii
School Year 1980-81

| | Total Number Screened | Number Referred | % Referred | No. Of Completed Referrals | % Comp. Ref. | Number Deficit Finding | % Def. Find. | % Def. Find. of Number Screened | % Over Ref. |
|---|---|---|---|---|---|---|---|---|---|
| Preschools | 6,011 | 154 | 3% | 87 | 56% | 77 | 89% | 1% | 11% |
| Private/Parochial Schools | 10,617 | 152 | 1% | 85 | 56% | 82 | 96% | 1% | 4% |
| Dept. of Education | 65,698 | 1,950 | 3% | 1,012 | 52% | 942 | 93% | 1% | 7% |
| Oahu | 49,329 | 1,457 | 3% | 698 | 48% | 641 | 92% | 1% | 8% |
| Hawaii | 8,214 | 258 | 3% | 179 | 69% | 170 | 95% | 2% | 5% |
| Maui | 5,140 | 163 | 3% | 106 | 65% | 103 | 97% | 2% | 3% |
| Kauai | 3,015 | 72 | 2% | 29 | 40% | 28 | 97% | 1% | 3% |
| Total | 82,326 | 2,256 | 3% | 1,184 | 52% | 1,101 | 93% | 1% | 7% |

TABLE 23
NUMBER OF STUDENTS RECEIVING OCCUPATIONAL THERAPISTS' SERVICES
BY CATEGORY AND DISTRICT
School Health Services Branch
Department of Health, State of Hawaii
FISCAL YEAR 1980-81

| | Honolulu | Windward | Central | Leeward | Hawaii | Maui | Kauai | Total |
|---|---|---|---|---|---|---|---|---|
| Multiply Handicapped | -- | -- | 2 | 3 | 5 | -- | -- | 10 |
| Severely Multiply Handicapped | 35 | 21 | 16 | 26 | 14 | 8 | 7 | 127 |
| Learning Disabled | 46 | 78 | 70 | 7 | 16 | 3 | 24 | 244 |
| Educ. Ment. Retarded | 24 | 22 | 10 | 4 | 3 | 5 | 4 | 72 |
| Train. Ment. Retarded | 18 | 39 | 20 | 30 | 25 | 6 | 7 | 145 |
| Sev. Ment. Retarded | 2 | 6 | -- | 11 | -- | -- | 1 | 20 |
| Ortho. Handicapped | 8 | 3 | 5 | 6 | 3 | 2 | 5 | 32 |
| Deaf/Blind | 3 | -- | 2 | -- | -- | -- | -- | 5 |
| Ser. Emot. Disturbed | 4 | 6 | 10 | 1 | 2 | -- | -- | 23 |
| Visually Impaired | 6 | -- | 2 | -- | -- | -- | 1 | 9 |
| Hearing Impaired | 6 | 2 | -- | 1 | 2 | -- | -- | 11 |
| Others | 14 | 65 | 12 | 20 | 22 | 3 | 3 | 139 |
| Total | 166 | 242 | 149 | 109 | 92 | 27 | 52 | 837 |

TABLE 24
NUMBER OF STUDENTS RECEIVING PHYSICAL THERAPISTS' SERVICES
BY CATEGORY AND DISTRICT
School Health Services Branch
Department of Health, State of Hawaii
FISCAL YEAR 1980-81

| | Honolulu | Windward | Central | Leeward | Hawaii | Maui | Kauai | Total |
|---|---|---|---|---|---|---|---|---|
| Multiply Handicapped | 1 | -- | -- | 1 | 2 | -- | -- | 4 |
| Severely Multiply Handicapped | 27 | 21 | 19 | 29 | 15 | 9 | 7 | 127 |
| Learning Disabled | 28 | 2 | 11 | 3 | 5 | 3 | 14 | 66 |
| Educ. Ment. Retarded | 6 | -- | 5 | 3 | 1 | 4 | 4 | 23 |
| Train. Ment. Retarded | 9 | 5 | 21 | 13 | 22 | 5 | 7 | 82 |
| Sev. Ment. Retarded | -- | 2 | -- | 7 | -- | -- | 1 | 10 |
| Ortho. Handicapped | 8 | 5 | 8 | 1 | 9 | 7 | 6 | 44 |
| Deaf/Blind | 5 | -- | 1 | -- | 2 | -- | -- | 8 |
| Ser. Emot. Disturbed | 1 | -- | 2 | 1 | 1 | -- | 4 | 9 |
| Visually Impaired | 4 | -- | -- | -- | -- | -- | 1 | 5 |
| Hearing Impaired | 7 | -- | -- | 2 | -- | -- | -- | 9 |
| Others | -- | 5 | 15 | -- | 6 | -- | -- | 26 |
| Total | 96 | 40 | 82 | 60 | 63 | 28 | 44 | 413 |

### TABLE 25
### NUMBER OF STUDENTS RECEIVING OCCUPATIONAL THERAPY ASSISTANT SERVICES BY CATEGORY AND DISTRICT

School Health Services Branch
Department of Health, State of Hawaii
School Year 1980-81

| | Honolulu | Windward | Central | Leeward | Total |
|---|---|---|---|---|---|
| Multiply Handicapped | -- | -- | -- | -- | -- |
| Severely Multiply Handicapped | 11 | 8 | -- | 9 | 28 |
| Learning Disabled | 22 | 57 | 39 | 18 | 136 |
| Educ. Ment. Retarded | 15 | 11 | 2 | 10 | 38 |
| Train. Ment. Retarded | 27 | 15 | 11 | 18 | 71 |
| Sev. Ment. Retarded | -- | 4 | 1 | 2 | 7 |
| Ortho. Handicapped | -- | 1 | 2 | -- | 3 |
| Deaf/Blind | -- | -- | -- | -- | -- |
| Ser. Emot. Distrubed | 1 | 2 | 5 | 1 | 9 |
| Visually Impaired | -- | -- | -- | -- | -- |
| Hearing Impaired | -- | -- | -- | -- | -- |
| Others | -- | 2 | 29 | 5 | 36 |
| Total | 76 | 100 | 89 | 63 | 328 |

# COMMUNICABLE DISEASE DIVISION

# SUMMARY

There were 4,289 gonorrhea infections reported in 1981, representing a case rate of 444.6 cases per 100,000 population. This is the third consecutive year Hawaii has recorded a decrease in the gonorrhea rate. Seventy-five percent of the gonorrhea cases occurred in the 15-29 age group. There were 184 cases of "Penicillinase-producing *Neisseria gonorrhoeae* (PPNG)" in 1981--a 14% increase over 1980.

Although primary and secondary syphilis cases (75) decreased by 40% from last year, the total number of primary and secondary syphilis cases remains too small to detect significant trends. Of importance, but not shown on the tables, is the total number of early syphilis (primary, secondary and early latent) by sex. Of the 122 early syphilis cases, 116 were in males and only 6 were in females.

The incidence in Hawaii of vaccine-preventable diseases remains low: only 7 cases of measles, 26 of mumps, 15 rubella and 3 pertussis. No cases of polio, diphtheria or tetanus were reported. All cases of measles and rubella were related to importations of these diseases from Australia, the Philippines, or Japan. Hawaii's high immunization rates are responsible for the low incidence of these diseases among Hawaii residents.

Reporting cases of 4 enteric diseases increased in comparison with 1980 reports: infectious hepatitis, salmonellosis, shigellosis and amebiasis. The case rates per 100,000 for this group of diseases during 1981 were highest on Maui (105) and Oahu (97) in comparison with Kauai (67) and Hawaii (44).

Reported cases of aseptic meningitis have consistently shown an annual increase in the 1977-1981 period. No aseptic meningitis cases were reported from Maui and Kauai during 1981. The 1981 case rate per 100,000 for the Big Island was 49 and for Oahu 18.

## TABLE 1
## NUMBER OF CASES AND DEATHS FROM COMMUNICABLE DISEASES STATE OF HAWAII, 1977, 1978, 1979, 1980 and 1981

| Disease | 1977 | | 1978 | | 1979 | | 1980 | | 1981 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Cases | Deaths | Cases | Deaths | Cases | Deaths | Cases | Deaths | Cases | Deaths |
| Total | 14,198 | 24 | 11,079 | 16 | 11,957 | 30 | 12,270 | 30 | 11,438 | 19 |
| Amebiasis | 12 | - | 13 | - | 27 | - | 16 | - | 29 | - |
| Brucellosis (Undulant fever) | - | - | - | - | - | - | - | - | - | - |
| Chancroid | 1 | - | - | - | - | - | - | - | 2 | - |
| Chickenpox | 948 | - | 685 | - | 835 | 2 | 926 | - | 809 | - |
| Conjunctivitis, infectious | 23 | - | 10 | - | 28 | - | 50 | - | 15 | 1 |
| Diphtheria | - | - | - | - | - | - | - | - | - | - |
| Encephalitis, primary & post-infectious | 2 | - | 1 | - | 21 | - | 22 | - | 7 | - |
| Gonorrhea | 4,256 | - | 3,409 | - | 4,373 | - | 4,383 | - | 4,289 | - |
| Hansen's Disease | 27 | - | 31 | 1 | 33 | 1 | 34 | - | 49 | 2 |
| Hepatitis, infectious | 142 | 5 | 159 | 2 | 123 | - | 84 | - | 124 | - |
| Hepatitis, serum | 83 | - | 65 | - | 93 | 1 | 119 | 7 | 95 | 2 |
| Hepatitis, unspecified | 14 | - | 29 | - | 26 | - | 29 | 1 | 28 | - |
| Hookworm disease (Ancylostomiasis) | 107 | - | 101 | - | 145 | - | 132 | - | 99 | - |
| Influenza | 585 | 1 | 352 | - | 464 | 6 | 118 | 2 | 96 | 1 |
| Leptospirosis (Weil's disease) | 6 | - | 17 | - | 17 | - | 27 | - | 26 | - |
| Lymphogranuloma venereum | - | - | - | - | - | - | - | - | 1 | - |
| Malaria a/ | 2 | - | 22 | - | 6 | - | 29 | - | 11 | - |
| Measles (Rubeola) | 51 | - | 9 | - | 68 | - | 6 | - | 7 | - |
| Meningitis, aseptic & viral | 61 | - | 78 | - | 115 | - | 145 | - | 184 | - |
| Meningitis, bacterial (All types) b/ | 22 | 7 | 16 | 3 | 26 | 4 | 49 | 5 | 41 | 3 |
| Meningitis, meningococcal | (4) | (1) | (3) | - | (9) | (1) | (1) | - | (4) | - |
| Meningitis, unspecified | 1 | 4 | - | 1 | - | 2 | 1 | 1 | - | 3 |
| Mononucleosis, infectious | 63 | - | 46 | 1 | 44 | - | 49 | - | 66 | - |
| Mumps | 42 | - | 38 | - | 117 | - | 24 | - | 26 | - |
| Pertussis (Whooping cough) | - | - | 1 | - | 10 | - | - | - | 3 | - |
| Poliomyelitis | - | - | 1 | - | - | - | - | - | - | - |
| Rubella (German measles) | 438 | - | 13 | - | 16 | - | 5 | - | 15 | - |
| Rubella, congenital syndrome | - | - | - | - | 1 | - | - | - | - | - |
| Salmonellosis | 603 | 1 | 485 | - | 406 | - | 405 | - | 513 | - |
| Scarlet fever & other strep infections | 5,919 | - | 4,959 | - | 4,348 | - | 5,102 | - | 4,348 | - |
| Shigellosis | 113 | - | 131 | - | 98 | - | 156 | - | 214 | - |
| Syphilis, primary & secondary | 46 | - | 51 | - | 106 | - | 131 | - | 75 | - |
| Syphilis, early latent | 37 | - | 34 | - | 69 | - | 74 | - | 47 | - |
| Syphilis, late & late latent | 6 | - | 20 | - | 21 | - | 20 | - | 19 | - |
| Tetanus | - | - | - | - | - | - | - | - | - | - |
| Trichinosis | - | - | - | - | - | - | - | - | - | - |
| Tuberculosis | 584 | 6 | 290 | 8 | 311 | 14 | 127 | 14 | 197 | 7 |
| Typhoid fever | 3 | - | 11 | - | 7 | - | 4 | - | 2 | - |
| Typhus fever, endemic | 1 | - | 2 | - | 3 | - | 3 | - | 1 | - |

a/ Malaria acquired outside the State
b/ Includes meningitis, meningococcal

## TABLE 2

## SELECTED COMMUNICABLE DISEASE RATES PER 100,000 POPULATION IN STATE OF HAWAII 1977-1981

| Year | 1977 | 1978 | 1979 | 1980 | 1981 |
|---|---|---|---|---|---|
| Population | 894,700 | 896,600 | 914,700 | 972,600 | 981,000 |

Rates Per 100,000 Population

| | | | | | |
|---|---|---|---|---|---|
| All Communicable Diseases | 1,587 | 1,236 | 1,307 | 1,262 | 1,166 |
| Gonorrhea | 476 | 380 | 478 | 450 | 437 |
| Communicable Disease (Exclusive of Venereal Disease) | 1,101 | 844 | 808 | 788 | 714 |
| Scarlet Fever & Other Strep Infections | 662 | 553 | 475 | 525 | 443 |
| Influenza | 65 | 39 | 51 | 12 | 10 |
| Chickenpox | 106 | 76 | 91 | 95 | 82 |
| Mumps | 05 | 04 | 13 | 03 | 03 |
| Rubella (German Measles) | 49 | 01 | 02 | 01 | 01 |
| Measles (Rubeola) | 06 | 01 | 07 | 01 | 01 |

## TABLE 3
## COMMUNICABLE DISEASE REPORT BY GEOGRAPHIC AREAS
## STATE OF HAWAII, 1981

| Disease | State | | TOTAL CASES a/ | | | | | | Military Active Duty |
|---|---|---|---|---|---|---|---|---|---|
| | Number | Rate b/ | Hawaii | Oahu | Kauai | Lanai | Maui | Molokai | |
| Total | 11,438 | 1,165.7 | 913 | 9,463 | 493 | - | 567 | 2 | 1,379 |
| Amebiasis | 29 | 3.0 | - | 23 | - | - | 6 | - | - |
| Brucellosis (Undulant fever) | - | - | - | - | - | - | - | - | - |
| Chancroid | 2 | 0.2 | - | 2 | - | - | - | - | 2 |
| Chickenpox | 809 | 82.5 | 58 | 676 | 15 | - | 60 | - | 2 |
| Conjunctivitis, infectious | 15 | 1.5 | - | 15 | - | - | - | - | - |
| Diphtheria | - | - | - | - | - | - | - | - | - |
| Encephalitis, primary & post-infectious | 7 | 0.7 | 1 | 6 | - | - | - | - | - |
| Gonorrhea | 4,289 | 437.2 | 112 | 4,092 | 45 | - | 40 | - | 1,214 c/ |
| Hansen's Disease | 49 | 5.0 | 7 | 35 | 1 | - | 6 | - | 1 |
| Hepatitis, infectious | 124 | 12.6 | 4 | 108 | 6 | - | 6 | - | 68 |
| Hepatitis, serum | 95 | 9.7 | 3 | 88 | 4 | - | - | - | 22 |
| Hepatitis, unspecified | 28 | 2.8 | 1 | 23 | 3 | - | 1 | - | 5 |
| Hookworm disease (Ancylostomiasis) | 99 | 10.1 | - | 95 | 2 | - | 2 | - | - |
| Influenza | 96 | 9.8 | 1 | 93 | 2 | - | - | - | - |
| Leptospirosis (Weil's disease) | 26 | 2.6 | 11 | 5 | 10 | - | - | - | - |
| Lymphogranuloma venereum | 1 | 0.1 | - | 1 | - | - | - | - | - |
| Malaria (All imported) | 11 | 1.1 | - | 10 | - | - | 1 | - | 6 |
| Measles (Rubeola) | 7 | 0.7 | - | 6 | - | - | 1 | - | - |
| Meningitis, aseptic & viral | 184 | 18.8 | 45 | 139 | - | - | - | - | 10 |
| Meningitis, bacterial (All types) d/ | 41 | 4.2 | 11 | 29 | 1 | - | - | - | 2 |
| Meningitis, meningo. | (4) | (0.4) | - | (4) | - | - | - | - | - |
| Meningitis, unspec. | - | - | - | - | - | - | - | - | - |
| Mononucleosis, infec. | 66 | 6.7 | - | 66 | - | - | - | - | 24 |
| Mumps | 26 | 2.6 | 4 | 21 | - | - | 1 | - | - |
| Pertussis (Whooping cough) | 3 | 0.3 | 1 | 2 | - | - | - | - | - |
| Poliomyelitis | - | - | - | - | - | - | - | - | - |
| Rubella (German measles) e/ | 15 | 1.5 | 1 | 14 | - | - | - | - | |
| Rubella, congenital syndrome | - | - | - | - | - | - | - | - | - |
| Salmonellosis | 513 | 52.3 | 35 | 401 | 18 | - | 59 | - | 6 |
| Scarlet fever & other streptococcal inf. | 4,348 | 443.2 | 603 | 3,003 | 377 | - | 365 | - | - |
| Shigellosis | 214 | 21.8 | 1 | 207 | 2 | - | 4 | - | 2 |
| Syphilis, primary & secondary | 75 | 7.6 | - | 72 | 2 | - | 1 | - | 5 c/ |
| Syphilis, early latent | 47 | 4.8 | - | 44 | 1 | - | 2 | - | 6 c/ |
| Syphilis, late & late latent | 19 | 1.9 | - | 15 | 1 | - | 3 | - | 4 c/ |
| Tetanus | - | - | - | - | - | - | - | - | - |
| Trichinosis | - | - | - | - | - | - | - | - | - |
| Tuberculosis | 197 | 20.1 | 14 | 171 | 2 | - | 9 | 1 | - |
| Typhoid fever | 2 | 0.2 | - | 1 | 1 | - | - | - | - |
| Typhus fever, endemic | 1 | 0.1 | - | - | - | - | - | 1 | - |

a/ Resident cases (includes military on active duty)
b/ Number per 100,000 total population (981,000)
c/ Reported cases by military facilities
d/ Includes meningitis, meningococcal
e/ Includes 7 imported cases

### TABLE 4

### VENEREAL DISEASE CASES REPORTED TO THE DEPARTMENT OF HEALTH BY DIAGNOSIS AND SOURCE OF REPORT STATE OF HAWAII 1981

| Type of Disease | | Total | Private Physicians, Hospitals and Institutions | Public Clinics, Hospitals and Institutions | Military |
|---|---|---|---|---|---|
| Total Cases | Number | 4,434 | 1,472 | 1,730 | 1,232 |
| | Percent | 100 | 33 | 39 | 28 |
| Syphilis: | | | | | |
| Primary and Secondary | | 75 | 31 | 39 | 5 |
| Early Latent | | 47 | 5 | 36 | 6 |
| Late and Late Latent | | 19 | 14 | 1 | 4 |
| Gonorrhea | | 4,289 | 1,421 | 1,654 | 1,214 |
| Other Venereal Diseases | | 4 | 1 | -- | 3 |

### TABLE 5

### TOTAL PRIMARY AND SECONDARY SYPHILIS CASES BY AGE STATE OF HAWAII 1976 - 1981

| Age in Years | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 |
|---|---|---|---|---|---|---|
| Total All Ages | 99 | 46 | 51 | 106 | 131 | 75 |
| 0 - 14 | -- | -- | -- | -- | -- | 1 |
| 15 - 19 | 8 | 4 | 3 | 7 | 8 | 2 |
| 20 - 24 | 29 | 15 | 14 | 26 | 25 | 14 |
| 25 - 29 | 25 | 12 | 11 | 20 | 32 | 14 |
| 30 - 34 | 19 | 5 | 7 | 23 | 18 | 17 |
| 35 - 39 | 10 | 3 | 8 | 11 | 17 | 11 |
| 40 - 44 | 4 | 1 | 5 | 13 | 14 | 4 |
| 45 - 49 | 3 | 1 | 1 | 5 | 6 | 8 |
| 50 and Over | 1 | 5 | -- | 1 | 8 | 4 |
| Unknown | -- | -- | 2 | -- | 3 | -- |

### TABLE 6

### TOTAL GONORRHEA CASES BY AGE STATE OF HAWAII 1976 - 1981

| Age in Years | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 |
|---|---|---|---|---|---|---|
| Total All Ages | 3,591 | 4,256 | 3,409 | 4,373 | 4,383 | 4,289 |
| 0 - 14 | 16 | 20 | 11 | 18 | 18 | 7 |
| 15 - 19 | 719 | 733 | 510 | 711 | 620 | 548 |
| 20 - 24 | 1,360 | 1,633 | 1,269 | 1,714 | 1,758 | 1,761 |
| 25 - 29 | 798 | 940 | 737 | 908 | 870 | 892 |
| 30 - 34 | 339 | 410 | 386 | 438 | 436 | 508 |
| 35 - 39 | 128 | 190 | 172 | 206 | 210 | 208 |
| 40 - 44 | 73 | 96 | 90 | 98 | 99 | 103 |
| 45 - 49 | 36 | 38 | 32 | 46 | 58 | 51 |
| 50 and Over | 39 | 65 | 55 | 52 | 58 | 54 |
| Unknown | 83 | 131 | 147 | 182 | 256 | 157 |

### TABLE 7

### NUMBER AND RATE PER 100,000 POPULATION OF TOTAL REPORTED GONORRHEA CASES STATE OF HAWAII, 1969 - 1981

| YEAR | 15 - 19 YEARS | | | 20 - 24 YEARS | | | 25 - 29 YEARS | | | ALL AGES | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CASES | POPULATION*[1] | RATE | CASES | POPULATION[1] | RATE | CASES | POPULATION[1] | RATE | CASES | POPULATION[1] | RATE |
| 1969 | 147 | 69,797 | 210.6 | 480 | 78,120 | 614.4 | 176 | 57,649 | 305.3 | 996 | 750,228 | 132.8 |
| 1970 | 264 | 72,278 | 365.3 | 712 | 82,029 | 868.0 | 223 | 49,819 | 447.6 | 1,494 | 773,212 | 193.2 |
| 1971 | 383 | 74,380 | 514.9 | 888 | 84,435 | 1,051.7 | 326 | 61,559 | 529.6 | 1,975 | 795,702 | 248.2 |
| 1972 | 365 | 76,293 | 478.4 | 925 | 86,604 | 1,068.1 | 363 | 63,141 | 574.9 | 2,080 | 816,149 | 254.9 |
| 1973 | 482 | 77,813 | 619.4 | 987 | 88,133 | 1,119.9 | 488 | 64,311 | 758.8 | 2,408 | 832,147 | 289.4 |
| 1974 | 576 | 79,190 | 727.4 | 1,209 | 89,748 | 1,347.1 | 549 | 65,467 | 838.6 | 2,923 | 846,869 | 345.2 |
| 1975 | 649 | 77,048 | 842.3 | 1,279 | 94,221 | 1,357.4 | 646 | 68,951 | 936.9 | 3,126 | 864,900 | 361.4 |
| 1976 | 719 | 82,400 | 872.6 | 1,360 | 99,900 | 1,361.4 | 798 | 82,600 | 966.1 | 3,591 | 886,621 | 405.0 |
| 1977 | 733 | 83,200 | 881.0 | 1,633 | 100,810 | 1,619.9 | 940 | 83,400 | 1,127.1 | 4,256 | 894,700 | 475.7 |
| 1978 | 510 | 86,073 | 592.5 | 1,269 | 104,902 | 1,209.7 | 737 | 88,763 | 830.3 | 3,409 | 896,600 | 380.2 |
| 1979 | 711 | 87,848 | 809.4 | 1,714 | 107,150 | 1,599.6 | 908 | 91,369 | 993.8 | 4,373 | 914,800 | 478.0 |
| 1980 | 620 | 86,505 | 716.7 | 1,758 | 105,761 | 1,662.2 | 870 | 95,201 | 913.9 | 4,383 | 964,624 | 454.4 |
| 1981 | 548 | 86,446 | 633.9 | 1,761 | 105,682 | 1,666.3 | 892 | 95,287 | 936.1 | 4,289 | 964,691 | 444.6 |

* Population data extrapolated by percent distribution from 1960 and 1970 census of Hawaii and estimated total resident population as of July 1 from R & S Report, Issue No. 5 for the years 1969 - 1979. 1980 - 1981 population figures taken from the 1980 census. Population includes Armed Forces and their dependents in Hawaii, and residents temporarily absent, excludes visitors present.

[1] Data shown only for computational convenience and not intended to imply accuracy beyond three significant figures.

The reported rates of Gonorrhea by selected age groups in Hawaii, according to their numerical ranking order are:
1) 20 - 24 years, 2) 25 - 29 years, and 3) 15 - 19 years.

## LEPROSY

In 1981, the number of newly diagnosed cases totaled 49. This compared with 34 in 1980 and an average of 32 for the five-year period 1976 through 1980. New cases are being detected early with 50% diagnosed within the first year of onset of symptoms or of entry to Hawaii.

Of the new 49 cases discovered in 1981, 40 were "imported" and 9 were found in persons born in Hawaii. Of those whose place of birth was other than Hawaii, 33 came from the Philippines; 6 from Samoa and 1 from Micronesia. There was an increase in the number of new locally-born cases this year. The five-year average for the years 1976 through 1980 was 2.8 locally born. Four of the 9 local born new cases were from families with known Hansen's Disease. We are still striving for the day when no new cases will be found among persons born in Hawaii.

Since early 1974, the policy followed by the program is to place all newly discovered cases of leprosy under outpatient treatment unless severe reactions or complications dictate that short term hospitalizations are indicated. The program maintains surveillance over contacts of known cases and arranges for periodic examinations of these contacts. This allows for early diagnosis of disease in this at-risk population.

Inpatient care is available for those who require treatment and care for their chronic problems. Those requiring this type of care are mostly the older long-term patients, whose problems developed before the availability of effective drug therapy. Relapses and reactivity still occur among this in-patient group. Nearly all of these chronic care patients are residents of Kalaupapa Settlement, who by law are entitled to live out the rest of their lives in the Settlement and do so at their request. The inpatient facility on Oahu, Hale Mohalu at Leahi, is operated primarily to provide medical support for Kalaupapa and to care for any outpatient who develops a need for temporary inpatient care because of severe leprous reactions or complications.

### TABLE 1

### TOTAL LEPROSY PATIENTS REGISTERED BY REGISTER STATUS AND YEAR STATE OF HAWAII, 1976-1981

| Register Status | 1977 | 1978 | 1979 | 1980 | 1981 |
|---|---|---|---|---|---|
| Total cases on register January 1...... | 421 | 421 | 437 | 458 | 474 |
| New cases added during the year........ | 27 | 31 | 33 | 34 | 49 |
| Formerly diagnosed cases returned to register........................... | 3 | 2 | 2 | 3 | 4 |
| Removed during year.................... | 30 | 17 | 14 | 21 | 21 |
| Deaths............................ | 5 | 5 | 5 | 8 | 6 |
| Left the State.................... | 14 | 10 | 1 | 4 | 1 |
| Discharged from further surveillance .................. | 11 | 2 | 8 | 9 | 14 |
| Total cases on register December 31 | 421 | 437 | 458 | 474 | 506 |

### TABLE 2

### LEPROSY PATIENTS, KALAUPAPA REGISTRY STATUS STATE OF HAWAII, 1976-1981

| Register Status | 1977 | 1978 | 1979 | 1980 | 1981 |
|---|---|---|---|---|---|
| Total patients - Kalaupapa Registry January 1........................... | 131 | 128 | 127 | 124 | 119 |
| Deaths................................ | 3 | 1 | 1 | 5 | 4 |
| Transfer from Registry................ | - | 1 | 2 | - | - |
| Transfer to Registry.................. | - | 1 | - | - | - |
| Left the State........................ | - | - | - | - | - |
| Total patients - Kalaupapa Registry December 31.......................... | 128 | 127 | 124 | 119 | 115 |
| Reactivated cases..................... (criteria: positive skin smears) | 32 | 14 | 5 | 5 | 6 |

### TABLE 3

### TOTAL CASES OF LEPROSY REGISTERED BY TYPE, LOCATION AND YEAR STATE OF HAWAII, 1977-1981

| Type and Location | 1977 | 1978 | 1979 | 1980 | 1981 |
|---|---|---|---|---|---|
| Total cases on register December 31 . . . . . | 421 | 437 | 458 | 474 | 506 |
| Medically released . . . . . . . . . . . . . . | 417 | 434 | 458 | 474 | 506 |
| At home . . . . . . . . . . . . . . . . . . | 288 | 304 | 328 | 349 | 385 |
| Kalaupapa . . . . . . . . . . . . . . . . . | 128 | 127 | 124 | 119 | 115 |
| Hale Mohalu at Leahi . . . . . . . . . . . . | 1 | 3 | 6 | 6 | 6 |
| Hospital Care Days - Total . . . . . . . . . . | 44,267 | 42,253 | 40,471 | 39,996 | 41,150 |
| Kalaupapa . . . . . . . . . . . . . . . . . | 37,469 | 34,961 | 34,741 | 33,971 | 34,320 |
| Hale Mohalu at Leahi . . . . . . . . . . . . | 6,798 | 7,292 | 5,730 | 6,025 | 6,830 |
| Total Contacts December 31 . . . . . . . . . . | 1,070 | 1,088 | 1,110 | 1,400 | 1,600 |

## TABLE 4

### LEPROSY PATIENTS BY PUBLIC HEALTH NURSING DISTRICTS (ESTIMATED) 04-30-82

| | HAWAIIAN | SAMOAN | FILIPINO | OTHER | TOTAL |
|---|---|---|---|---|---|
| Hawaii | 17 | 4 | 16 | 6 | 38 |
| Kauai | 1 | 1 | 10 | 3 | 15 |
| Lanai | 0 | 0 | 2 | 0 | 2 |
| Maui | 11 | 0 | 16 | 0 | 27 |
| Moloka | 4 | 0 | 0 | 0 | 4 |
| | | | Neighbor Islands | | 86 |

| | HAWAIIAN | SAMOAN | FILIPINO | OTHER | TOTAL |
|---|---|---|---|---|---|
| Central | 15 | 12 | 9 | 21 | 57 |
| Kapahulu | 7 | 8 | 2 | 6 | 23 |
| Lanakila | 18 | 26 | 63 | 2 | 100 |
| Leeward | 10 | 26 | 78 | 4 | 118 |
| Windward | 6 | 4 | 7 | 4 | 21 |
| | | | | Oahu | 328 |

## TABLE 5

### NEW CASES OF LEPROSY BY AGE GROUP AND YEAR STATE OF HAWAII, 1977-1981

| Age in Years | 1977 | 1978 | 1979 | 1980 | 1981 |
|---|---|---|---|---|---|
| All Ages | | | | | |
| 0 - 9 | 1 | 1 | 1 | - | 1 |
| 10 - 19 | 1 | 5 | 9 | 5 | 6 |
| 20 - 29 | 10 | 9 | 5 | 9 | 11 |
| 30 - 39 | 3 | 6 | 2 | 7 | 4 |
| 40 - 49 | 5 | 3 | 6 | 2 | 5 |
| 50 - 59 | 1 | 2 | 7 | 2 | 10 |
| 60 - 69 | 4 | 5 | 3 | 6 | 7 |
| 70 and over | 2 | - | - | 3 | 5 |

## TABLE 6

### NEW CASES OF LEPROSY BY ISLAND OF RESIDENCE AND YEAR STATE OF HAWAII, 1977-1981

| Island | 1977 | 1978 | 1979 | 1980 | 1981 |
|---|---|---|---|---|---|
| All Islands | 27 | 31 | 33 | 34 | 49 |
| Hawaii | 1 | 1 | 2 | 2 | 6 |
| Oahu | 22 | 27 | 25 | 24 | 35 |
| Maui | 2 | 1 | 1 | 4 | 6 |
| Kauai | 2 | 1 | 5 | 4 | 2 |
| Molokai | - | - | - | - | 0 |
| Lanai | - | 1 | - | - | 0 |

## TABLE 7

### NEW CASES OF LEPROSY BY COUNTRY OF BIRTH AND YEAR STATE OF HAWAII, 1977-1981

| Country of Birth | TOTAL | 1977 | 1978 | 1979 | 1980 | 1981 |
|---|---|---|---|---|---|---|
| All Countries | 174 | 27 | 31 | 33 | 34 | 49 |
| Hawaii | 18 | 3 | 3 | - | 3 | 9 |
| Philippines | 111 | 15 | 16 | 24 | 23 | 33 |
| Japan | 0 | - | - | - | - | - |
| China | 0 | - | - | - | - | - |
| Samoa | 33 | 7 | 10 | 5 | 5 | 6 |
| Micronesia | 1 | - | - | - | - | 1 |
| United States | 5 | 1 | 1 | 1 | 2 | - |
| Other* | 6 | 1 | 1 | 3 | 1 | - |

*Fiji - 1(78); Tonga - 1(77); Vietnam - 3(75), 2(79); Canada 1(79); Marshall Isle - 1(80)

# SUMMARY 1981

The Tuberculosis Branch provides out-patient tuberculosis treatment for Oahu at Lanakila Health Center Chest Clinic and Rural Clinics elsewhere on the island. In addition, the Branch runs a chest clinic for tuberculosis on Maui, with the assistance of Public Health Nursing Branch, and consults with the District Health Officers, tuberculosis physicians on Hawaii and Kauai, and the Public Health Nursing Branch. Leahi, Kula and Samuel Mahelona Hospitals also provide tuberculosis support and treatment services. Tuberculosis screening examinations, including skin tests and x-rays are performed by the Branch at Lanakila Health Center. Skin testing is also performed by the Public Health Nursing Branch elsewhere on Oahu and in other counties, and x-rays in other counties are provided by various county-state hospitals. The Tuberculosis Branch also maintains the State Tuberculosis Register, and monitors the care of all cases of tuberculosis in the State. Examination of contacts of infectious cases and of infected children (without disease) is carried out cooperatively by the Tuberculosis and Public Health Nursing Branches.

During 1981, the tuberculosis incidence in Hawaii showed an apparent increase from 167 cases (17.3/100,000) in 1980 to 197 (20.1/100,000). The Tuberculosis Case Register and Data Management Systems have been in the process of revision during 1980 and 1981, and variations in the time between the reporting of a patient as a tuberculosis suspect and actual counting as a verified case accounts for most of the apparent increase. Hawaii's tuberculosis incidence rate remains among the highest in the nation. As in previous years, approximately half (47.8%) of all new cases were foreign-born individuals with less than one year's residence in Hawaii, and less than one-fourth of our cases were U.S. born as noted in Table 3. Patients were found through a variety of sources, and reasons for examinations, as seen in Table 6. Aliens admitted with tuberculosis not considered active plus aliens with waiver of excludability for tuberculosis together accounted for the largest group - 32% of our cases. Symptoms prompted examinations leading to diagnosis accounted for 25.9% of the cases. Thirty-six patients or 18.3% of our cases were found through survey activities. Seventeen of these individuals resided in the State for less than a year. The tuberculosis incidence rate for U.S. born individuals (4.9 cases per 100,000) remains well below the national average of approximately 12/100,000.

Only 4 of our cases represented reactivations (Table 8). In view of the large numbers of previously diagnosed cases from years when tuberculosis incidence was much greater, this reflects favorably on the effectiveness of modern therapy.

The variation in rates among the counties (Table 2) reflects patterns of distribution in the State of new immigrants - a group with the astounding estimated incidence of 950 cases per 100,000 (76 cases from an estimated immigrant population of about 8,000 for the year).

There were only 4 tuberculosis deaths in 1981 (Table 10). Treatment for tuberculosis is highly effective and deaths now rarely occur, except when patients delay seeking medical attention until disease is far advanced.

TABLE 1

X-RAY SURVEY ACTIVITIES FOR TUBERCULOSIS BY COUNTY
STATE OF HAWAII, 1981

| Geographic Area | Total Screening Films Taken | Retake Films Needed | X-rays Consistent with Current or Past Tuberculosis Infection | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Total | | Tuberculosis Diagnosed Current Disease | | Tuberculosis Not Confirmed | |
| | | | Number | Rate* | Number | Rate* | Number | Rate* |
| State of Hawaii .............. | 64,472 | 3,555 | 287 | 4.5 | 24 | .4 | 263 | 4.1 |
| County of Honolulu.......... | 57,591 | 3,410 | 282 | 4.9 | 23 | .4 | 259 | 4.5 |
| Mobile Units ............. | 6,684 | 151 | 5 | .7 | 1 | .1 | 4 | .6 |
| Lanakila Health Center.... | 50,907 | 3,259 | 277 | 5.4 | 22 | .4 | 255 | 5.0 |
| Routine Survey.......... | 40,389 | 2,249 | 149 | 3.7 | 11 | .3 | 138 | 3.4 |
| Medical Referrals....... | 1,275 | 198 | 12 | 9.4 | 1 | .8 | 11 | 8.6 |
| Other Agency Referrals.. | 7,301 | 656 | 89 | 12.2 | 8 | 1.1 | 81 | 11.1 |
| Tuberculin Testing Program - PHN......... | 1,264 | 101 | 5 | 4.0 | - | - | 5 | 4.0 |
| Extensions of Stay of Non-Immigrant Visas... | 678 | 55 | 22 | 32.4 | 2 | 2.9 | 20 | 29.5 |
| County of Hawaii............ | 6,881 | 145 | 5 | .7 | 1 | .1 | 4 | .6 |

*Per 1,000 survey films

TABLE 2

TUBERCULOSIS CASES REPORTED BY GEOGRAPHIC AREA OF RESIDENCE
STATE OF HAWAII, 1981

| Geographic Area of Residence | TUBERCULOSIS CASES REPORTED | | | |
|---|---|---|---|---|
| | 1980 | | 1981 | |
| | Number | Rate a/ | Number | Rate a/ |
| State of Hawaii ...................... | 167 | 17.3 | 197 | 20.1 |
| County of Honolulu ................ | 146 | 19.4 | 171 | 22.1 |
| City of Honolulu ................ | 98 | 26.9 | 100 | 27.0 |
| Rest of Oahu .................... | 48 | 12.1 | 71 | 17.6 |
| County of Hawaii .................. | 9 | 9.8 | 14 | 15.1 |
| County of Maui b/.................. | 8 | 11.3 | 10 | 13.8 |
| County of Kauai ................... | 4 | 10.2 | 2 | 5.1 |

a/ Per 100,000 total population
b/ Includes Kalawao County

TABLE 3

TUBERCULOSIS CASES BY PLACE OF BIRTH AND LENGTH OF RESIDENCE, AND NUMBER OF PERSONS ADMITTED TO HAWAII WITH PERMANENT VISAS
STATE OF HAWAII, 1981

| Birthplace or Time in Hawaii | 1980 | | | 1981 | | |
|---|---|---|---|---|---|---|
| | Number | Percent | Rate a/ | Number | Percent | Rate a/ |
| Total ............................ | 167 | 100.0 | 17.3 | 197 | 100.0 | 20.1 |
| Foreign-Born b/................. | 131 | 78.4 | 138.5 | 152 | 77.2 | 158.5 |
| 1 year or less ............... | 76 | 45.5 | --- | 94 | 47.8 | --- |
| Over 1 year - 2 years ........ | 11 | 6.6 | --- | 16 | 8.1 | --- |
| Over 2 years - 5 years ....... | 11 | 6.6 | --- | 7 | 3.6 | --- |
| Over 5 years ................. | 28 | 16.7 | --- | 32 | 16.2 | --- |
| Unknown time in State ........ | 5 | 3.0 | --- | 3 | 1.5 | --- |
| Mainland-Born .................. | 4 | 2.4 | 1.7 | 4 | 2.0 | 1.7 |
| Hawaii-Born .................... | 31 | 18.6 | 4.9 | 39 | 19.8 | 6.1 |
| Birthplace unknown ............. | 1 | .6 | --- | 2 | 1.0 | --- |
| U.S. Born Rate (Hawaii + Mainland) .......... | 35 | 21.0 | 4.0 | 43 | 21.8 | 4.9 |
| U.S. National Average Rate ..... | ... | ... | 12.3 | ... | ... | N/A |
| Number of Persons Admitted to Hawaii with Permanent Visas c/ | 6,978 | | | 6,570 | | |

a/ Rate - Cases per 100,000 total civilian population; rate for foreign-born, mainland-born and Hawaii-born are estimates.
b/ Foreign-born includes people coming to Hawaii from both American and Western Samoa.
c/ Persons admitted to Hawaii with permanent visas include only individuals whose port of entry is Honolulu.

TABLE 4

TUBERCULOSIS CASES BY LOCATION OF DISEASE
AND COUNTY OF RESIDENCE, STATE OF HAWAII, 1981

| | | | COUNTY OF RESIDENCE | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | State of Hawaii | | Honolulu | | Hawaii | | Maui* | | Kauai | |
| Location of Disease | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| Total .................. | 197 | 100.0 | 171 | 100.0 | 14 | 100.0 | 10 | 100.0 | 2 | 100.0 |
| Pulmonary ........... | 173 | 87.8 | 150 | 87.7 | 12 | 85.7 | 9 | 90.0 | 2 | 100.0 |
| Pleural ............. | 3 | 1.5 | 3 | 1.8 | - | - | - | - | - | - |
| Lymphatic ........... | 8 | 4.1 | 7 | 4.0 | 1 | 7.1 | - | - | - | - |
| Cervical .......... | 8 | 4.1 | 7 | 4.0 | 1 | 7.1 | - | - | - | - |
| Intrathoracic ..... | - | - | - | - | - | - | - | - | - | - |
| Other Lymphatic ... | - | - | - | - | - | - | - | - | - | - |
| Unknown ........... | - | - | - | - | - | - | - | - | - | - |
| Bone and/or Joint ... | 4 | 2.1 | 4 | 2.3 | - | - | - | - | - | - |
| Genitourinary ....... | 3 | 1.5 | 2 | 1.2 | 1 | 7.2 | - | - | - | - |
| Miliary ............. | 3 | 1.5 | 2 | 1.2 | - | - | 1 | 10.0 | - | - |
| Meningeal ........... | - | - | - | - | - | - | - | - | - | - |
| Peritoneal .......... | - | - | - | - | - | - | - | - | - | - |
| Other ............... | 3 | 1.5 | 3 | 1.8 | - | - | - | - | - | - |
| Site Not Stated ..... | - | - | - | - | - | - | - | - | - | - |

*Includes Kalawao County

TABLE 5

TUBERCULOSIS CASES BY SOURCE OF REPORT AND COUNTY OF RESIDENCE
STATE OF HAWAII, 1981

| Source of Report | State of Hawaii | | COUNTY OF RESIDENCE | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Honolulu | | Hawaii | | Maui* | | Kauai | |
| | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| Total | 197 | 100.0 | 171 | 100.0 | 14 | 100.0 | 10 | 100.0 | 2 | 100.0 |
| Health Department | 114 | 57.9 | 91 | 53.2 | 11 | 78.6 | 10 | 100.0 | 2 | 100.0 |
| Private Physician | 47 | 23.9 | 45 | 26.3 | 2 | 14.3 | - | - | - | - |
| Tuberculosis Hospital or OPD | 27 | 13.7 | 26 | 15.2 | 1 | 7.1 | - | - | - | - |
| General Hospital or OPD | 3 | 1.5 | 3 | 1.8 | - | - | - | - | - | - |
| Tripler Army Hospital or VA | 5 | 2.5 | 5 | 2.9 | - | - | - | - | - | - |
| Death Certificate | 1 | .5 | 1 | .6 | - | - | - | - | - | - |

*Includes Kalawao County

TABLE 6

TUBERCULOSIS CASES BY REASON FOR EXAMINATION AND COUNTY OF RESIDENCE
STATE OF HAWAII, 1981

| Reason for Examination | State of Hawaii | | COUNTY OF RESIDENCE | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Honolulu | | Hawaii | | Maui* | | Kauai | |
| | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| Total | 197 | 100.0 | 171 | 100.0 | 14 | 100.0 | 10 | 100.0 | 2 | 100.0 |
| Health Department Survey | 36 | 18.3 | 35 | 20.5 | 1 | 7.1 | - | - | - | - |
| Contact & Source Investigation | 6 | 3.0 | 4 | 2.3 | 2 | 14.3 | - | - | - | - |
| Chest Clinic Follow-up | 7 | 3.6 | 4 | 2.3 | 2 | 14.3 | 1 | 10.0 | - | - |
| Positive Reactor or Converter | 3 | 1.5 | 3 | 1.8 | - | - | - | - | - | - |
| Extension of Stay, Non-Immigrant Visa | 2 | 1.0 | 2 | 1.1 | - | - | - | - | - | - |
| Aliens with Waiver of Excludability for Tuberculosis | 27 | 13.7 | 23 | 13.5 | 2 | 14.3 | 2 | 20.0 | - | - |
| Aliens with Tuberculosis Not Considered Active | 36 | 18.3 | 29 | 17.0 | 3 | 21.5 | 3 | 30.0 | 1 | 50.0 |
| Review of Other Visa Films & Evaluation of Foreign-Born | 5 | 2.5 | 5 | 2.9 | - | - | - | - | - | - |
| Symptoms or Illness | 51 | 25.9 | 47 | 27.5 | 1 | 7.1 | 3 | 30.0 | - | - |
| General Hospital & PMD X-ray Findings | 9 | 4.6 | 8 | 4.7 | 1 | 7.1 | - | - | - | - |
| Death Certificate | 1 | .5 | 1 | .6 | - | - | - | - | - | - |
| Other | 11 | 5.6 | 8 | 4.7 | 2 | 14.3 | 1 | 10.0 | - | - |
| Unknown | 3 | 1.5 | 2 | 1.1 | - | - | - | - | 1 | 50.0 |

*Includes Kalawao County

## TABLE 7

## TUBERCULOSIS CASES BY AGE, RACE AND SEX
## STATE OF HAWAII, 1981

| Age Group | ALL Races | | | Caucasian | | Hawaiian and part Hawaiian | | Chinese | | Filipino | | Japanese | | Korean | | Viet., Cam., Lao. | | Other* | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total | Male | Female | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F |
| Total ............ | 197 | 115 | 82 | 4 | 2 | 6 | 7 | 14 | 7 | 52 | 43 | 16 | 7 | 8 | 9 | 11 | 4 | 4 | 3 |
| 0 - 4 ......... | 3 | 2 | 1 | - | 1 | - | - | 1 | - | - | - | - | - | 1 | - | - | - | - | - |
| 5 - 9 ......... | 5 | 1 | 4 | - | - | 1 | 1 | - | - | - | 1 | - | - | - | - | - | - | - | 2 |
| 10 - 19 ........ | 11 | 5 | 6 | - | - | - | - | - | 2 | 4 | 1 | - | - | - | 2 | 1 | - | - | 1 |
| 20 - 29 ........ | 30 | 16 | 14 | 1 | - | - | - | 3 | 1 | 6 | 9 | - | - | 2 | 3 | 4 | 1 | - | - |
| 30 - 39 ........ | 29 | 13 | 16 | - | - | 1 | 3 | 2 | 1 | 1 | 8 | - | 1 | 4 | 2 | 4 | 1 | 1 | - |
| 40 - 49 ........ | 19 | 11 | 8 | 1 | - | 2 | 2 | 2 | - | 2 | 5 | 2 | - | 1 | - | 1 | 1 | - | - |
| 50 - 59 ........ | 39 | 24 | 15 | 1 | 1 | - | - | 3 | 1 | 11 | 9 | 6 | 3 | - | 1 | - | - | 3 | - |
| 60 - 69 ........ | 25 | 17 | 8 | - | - | - | - | 1 | 1 | 12 | 5 | 3 | 1 | - | - | 1 | 1 | - | - |
| 70 and Over .... | 36 | 26 | 10 | 1 | - | 2 | 1 | 2 | 1 | 16 | 5 | 5 | 2 | - | 1 | - | - | - | - |

*Other: American Samoa - 1; Western Samoa - 1; Indonesia - 2; Malaysian - 1; Thailand - 1; Black - 1.

## TABLE 8

## REACTIVATIONS REPORTED BY BACTERIOLOGY AND NUMBER OF REACTIVATIONS
## BY COUNTY, STATE OF HAWAII, 1981

| County | Total | Bacteriology | | | Number of Reactivations | | |
|---|---|---|---|---|---|---|---|
| | | Positive | Negative | Unknown | 1 | 2 | 3 |
| Total ............. | 4 | 4 | - | - | 4 | - | - |
| Honolulu ........ | 4 | 4 | - | - | 4 | - | - |
| Hawaii .......... | - | - | - | - | - | - | - |
| Maui* ........... | - | - | - | - | - | - | - |
| Kauai ........... | - | - | - | - | - | - | - |

*Includes Kalawao County

TABLE 9

REACTIVATIONS REPORTED BY AGE, SEX AND COUNTY, STATE OF HAWAII, 1981

| Age Group | State of Hawaii | | | Honolulu | | Hawaii | | Maui* | | Kauai | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female |
| Total ................. | 4 | 2 | 2 | 2 | 2 | - | - | - | - | - | - |
| Under 5 ............. | - | - | - | - | - | - | - | - | - | - | - |
| 5 - 14 ............. | - | - | - | - | - | - | - | - | - | - | - |
| 15 - 24 ............. | - | - | - | - | - | - | - | - | - | - | - |
| 25 - 44 ............. | 1 | - | 1 | - | 1 | - | - | - | - | - | - |
| 45 - 64 ............. | 2 | 1 | 1 | 1 | 1 | - | - | - | - | - | - |
| 65 and Over ......... | 1 | 1 | - | 1 | - | - | - | - | - | - | - |

*Includes Kalawao County

TABLE 10

NUMBER OF TUBERCULOSIS DEATHS, AND NEW CASES REPORTED BY YEAR
STATE OF HAWAII, 1930, 1940, 1950, 1960, 1970, 1980 and 1981

| Year | Deaths | New Cases Reported | Tuberculosis Cases |
|---|---|---|---|
| 1930 | 379 | 1,060 | 1,060 |
| 1940 | 257 | 717 | 717 |
| 1950 | 114 | 743 | 339 |
| 1960 | 13 | 462 | 293 |
| 1970 | 13 | 733 | 270 |
| 1980 | 5 | 810 | 167 |
| 1981 | 4 | 885 | 197 |

# DENTAL HEALTH DIVISION

# DENTAL HEALTH DIVISION
# DEPARTMENT OF HEALTH ANNUAL REPORT
# 1981

## SUMMARY

The Dental Health Division is responsible for conducting programs for the prevention and control of dental diseases. Other than carrying on planning and surveillance activities it conducts community programs aimed at preventing the occurrence of tooth decay and treating oral diseases that exist among groups of needy people.

In the Hospital Dentistry and Community Services program, two part-time dentist positions were lost to the program due to a cutback of federal funds. Federal funds for the Diamond Head Clinic and Nanakuli Dental Clinic positions were lost and the Diamond Head Clinic had to be staffed by spreading the assignment of existing dentists. Compared to last year, the program saw 352 fewer patients this year. The kinds of care rendered this year were for less severe conditions than in previous years. For instance, only 267 extractions (teeth pulled) were done this year compared to 336 last year per 1,000 patients. As expected, patients treated in community-centered clinics required more extractions (280) than patients in institutions (239). Conversely, the number of dentures made were higher this year in community clinics than in 1980 (144 in 1981 vs 124 in 1980 per 1,000 patients treated).

In the Institutional Dental Care Program, treatment of penal code and security patients continue to be major challenges. These patients present the most severe behavior problem in the dental chair; yet they generally have more severely neglected mouths. During the last year, the waiting room for the dental clinic at Hawaii State Hospital was eliminated to make room for a hallway. All of Guensberg building, except for physical therapy, x-ray and the dental clinic, was converted to enlarge the close intensive security unit (CISU). One of the two dental chairs was not in service for the entire year.

Mass prevention of tooth decay is made available to Hawaii's school children through the topical fluoride application program conducted by the Dental Hygiene Branch. The program aims at reducing tooth decay among enrolled children by 25% or more. This method of preventing decay is being utilized in Hawaii due to the lack of acceptance of community water fluoridation. Without doubt fluoridation of water, with a potential of reducing decay as much as 65%, would be the most efficient way of preventing decay for Hawaii.

In Fiscal Year 1980-1981, a total of 65,449 children were provided applications of topical fluoride by dental hygienists. The program level on Hawaii showed a significant increase of 40.75% over the last fiscal year and was due primarily to the hire of a dental hygienist for the West Hawaii area (Kona). A 26.43% decline occurred on Maui with the untimely resignation of a dental hygienist.

Dental health education was provided to 8,568 individuals through classroom talks and assemblies. This activity was in addition to chairside dental health instruction given to children as part of the topical fluoride application procedure. Included in the total number of individuals were classroom teachers who were given assistance in preparing to present dental health instruction to their students. These teachers received assistance on a one-to-one basis.

## TABLE 1

## SUMMARY OF DENTAL HEALTH SERVICES

## STATE OF HAWAII, FISCAL YEAR 1980 - 1981

| Type of Services | Number Served |
|---|---|
| Prevention and Detection | |
| Number of School Children Given Topical Fluoride Applications | 65,449 |
| Number of School Children REferred to Private Dentists | 198,933 |
| Number of School Children Given Dental Health Education | 8,568 |
| Treatment | |
| Number of Persons Treated in Institutions | 880 |
| Number of Persons Treated in Community-centered Facilities | 1,778 |

## TABLE 2

## DISTRIBUTION OF DENTAL HYGIENE SERVICES BY COUNTIES
## STATE OF HAWAII, FISCAL YEAR 1980-1981

| Year and County | Number of Schools Served | | Number of Children Served | | |
|---|---|---|---|---|---|
| | Public | Private | Number of Dental Inspections and Follow-up | Number of Fluoride Applications | Dental Health Education |
| 1979-1980 STATE | 201 | 136 | 186,578 | 62,878 | 73,264 |
| 1980-1981 STATE | 198 | 130 | 192,933 | 65,449 | 74,017 |
| OAHU | 151 | 87 | 161,624 | 53,985 | 62,276 |
| HAWAII | 25 | 24 | 20,536 | 7,377 | 7,403 |
| KAUAI | 10 | 18 | 7,922 | 2,949 | 2,949 |
| MAUI-MOLOKAI-LANAI | 12 | 1 | 2,851 | 1,138 | 1,389 |

### TABLE 3
### DENTAL TREATMENT STATUS OF CHILDREN IN 191 SCHOOLS BY AREAS
### STATE OF HAWAII, 1980-1981

| AREA | Number of Schools Reported | Enrollment | Number of Children in Grades Kindergarten - 12th | | | Percent Completed and Receiving Treatment |
|---|---|---|---|---|---|---|
| | | | Completed Treatment | Receiving Treatment | No Treatment During School Year | |
| STATE 1979-1980 | 194 | 123,573 | 10,059 | 35,008 | 78,506 | 36.5 |
| STATE 1980-1981 | 191 | 127,422 | 9,742 | 35,944 | 81,736 | 35.9 |
| HONOLULU CITY | 55 | 37,436 | 3,141 | 10,949 | 23,346 | 37.6 |
| RURAL OAHU | 90 | 70,163 | 2,409 | 19,736 | 48,018 | 31.6 |
| Central Oahu | 33 | 25,652 | 777 | 7,205 | 17,670 | 31.1 |
| Leeward Oahu | 33 | 30,166 | 1,169 | 8,504 | 20,493 | 32.1 |
| Windward Oahu | 24 | 14,345 | 463 | 4,027 | 9,855 | 31.3 |
| HAWAII | 24 | 13,147 | 1,063 | 4,040 | 8,044 | 38.8 |
| KAUAI | 15 | 4,967 | 3,087 | 639 | 1,241 | 75.0 |
| MAUI | 6 | 1,211 | 39 | 410 | 762 | 37.1 |
| LANAI | 1 | 498 | 3 | 170 | 325 | 34.7 |

### TABLE 4

### TREATMENT DATA

### HOSPITAL DENTISTRY & COMMUNITY SERVICES BRANCH

### STATE OF HAWAII, F.Y. 1980-1981

| CLINICS | PATIENTS | | | | SELECTED PROCEDURES | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. of New Patients | Adults | Minors | NO. COMPLETED TREATMENT | Examinations | Radiographs | Prophylaxis | Topical Fluoride Appl. | Fillings | Extractions | Crowns | Dentures |
| TOTAL | 2,658 | 1,834 | 824 | 2,270 | 3,512 | 1,917 | 1,698 | 499 | 2,760 | 710 | 69 | 383 |
| Institutional | 880 | 880 | 0 | 963 | 1,434 | 155 | 703 | 45 | 397 | 211 | 13 | 113 |
| Community-centered | 1,778 | 954 | 824 | 1,307 | 2,078 | 1,762 | 995 | 454 | 2,363 | 499 | 56 | 270 |

# ENVIRONMENTAL PROTECTION AND HEALTH SERVICES DIVISION

## SUMMARY

The Pollution Investigation and Enforcement Branch of the Environmental Protection and Health Services Division is responsible for preserving and improving the quality of the environment throughout the State. Monitoring and enforcement programs are the principle vehicles through which pollution control regulations are implemented in the fields of air; water, including all non-potable coastal and fresh waters; and solid waste.

The branch is involved in the following activities:

1. Determination of violations and enforcement of pollution control regulations.
2. Monitoring of ambient conditions with air and water quality standards as control measures.
3. Inspection of conditions and operating procedures at landfills and sewer treatment plants.
4. Investigation of complaints by the public and conducting special studies in critical areas of environmental concern.

TABLE 1
SUMMARY OF AIR QUALITY DATA
STATE OF HAWAII, 1981
(24-Hour Sampling)

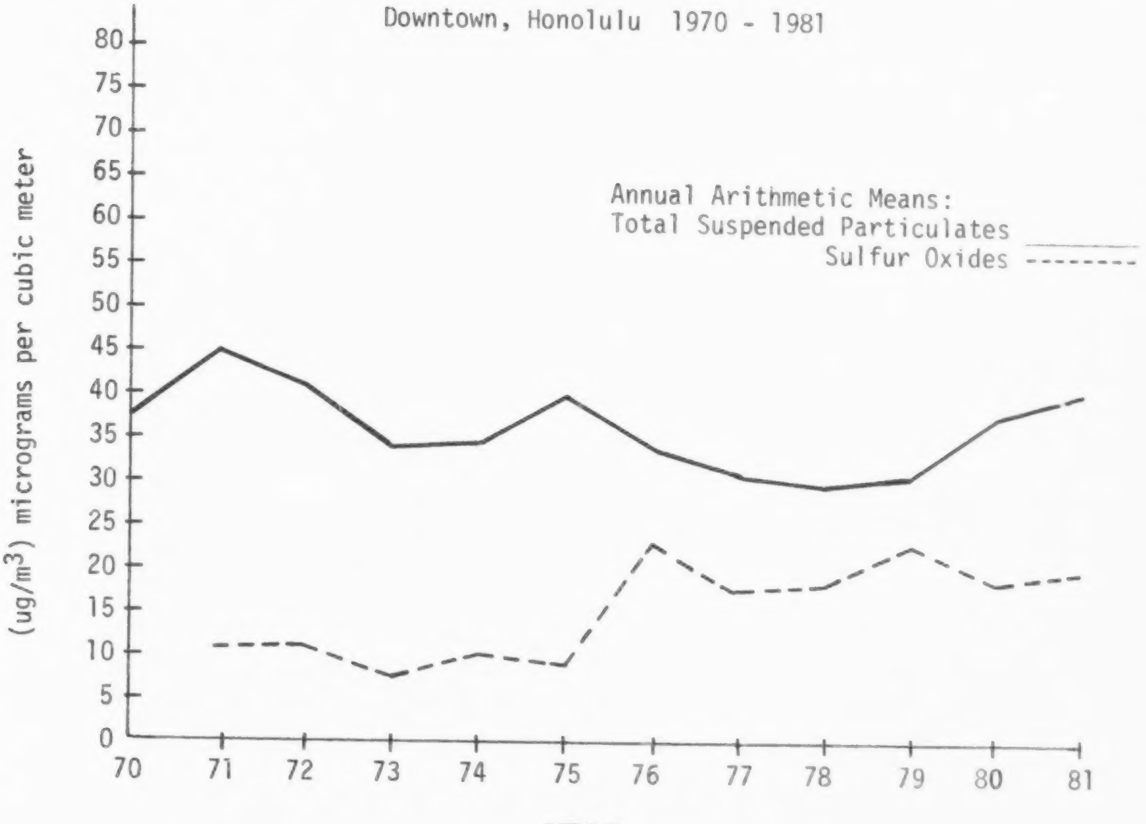
| Sampling Stations | Micrograms Per Cubic Meter (ug/m$^3$) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Total Suspended Particulates | | | | Sulfur Dioxide | | | |
| | No. of Samples | Annual Minimum | Annual Maximum | Arith. Average | No. of Samples | Annual Minimum | Annual Maximum | Arith. Average |
| Barbers Point - Oahu | 58 | 26 | 188 | 51 | 54 | <5 | 40 | 5 |
| Downtown, Honolulu - Oahu | 35 | 23 | 75 | 40 | 38 | <5 | 44 | 18.6 |
| Kalihi Kai - Oahu | 58 | 32 | 93 | 53 | 56 | <5 | 8 | <5 |
| Pearl City - Oahu | 59 | 19 | 71 | 34 | 56 | <5 | <5 | <5 |
| Waikiki - Oahu | 40 | 18 | 78 | 36 | 35 | <5 | <5 | <5 |
| Waimanalo - Oahu | 57 | 14 | 78 | 28 | ... | ... | ... | ... |
| Kahului - Maui | 56 | 28 | 180 | 76 | 47 | <5 | 337 | 73.5 |
| Kihei - Maui | 58 | 17 | 137 | 50 | ... | ... | ... | ... |
| Hilo - Hawaii | 40 | 10 | 46 | 19 | 45 | <5 | 11 | <5 |
| Honokaa - Hawaii | 52 | 12 | 66 | 24 | ... | ... | ... | ... |
| Lihue - Kauai | 53 | 18 | 83 | 37 | 55 | <5 | <5 | <5 |

Source: Hawaii State Department of Health,
Pollution Investigation and Enforcement Branch, records

FIGURE 1

TRENDS OF TOTAL SUSPENDED PARTICULATES
AND $SO_x$ IN THE AMBIENT AIR

Downtown, Honolulu 1970 - 1981



| Date | TSP $ug/m^3$ | $SO_x$ $ug/m^3$ |
|---|---|---|
| 1970 | 37 | - |
| 1971 | 45 | 11 |
| 1972 | 41 | 11 |
| 1973 | 34 | 7 |
| 1974 | 35 | 10 |
| 1975 | 40 | 9 |
| 1976 | 34 | 23 |
| 1977 | 31 | 17 |
| 1978 | 29 | 18 |
| 1979 | 32 | 22 |
| 1980 | 37 | 18 |
| 1981 | 40 | 19 |

Sampling is conducted approximately 46 ft. above ground on the roof of the State Health Department building, 1250 Punchbowl Street, Honolulu, Hawaii.

Primary and secondary National Ambient air quality standards have been promulgated by the federal government. Primary standards are designed to prevent adverse effects on public health, while secondary standards are designed to prevent adverse effects on public welfare, including the effects on comfort, visibility, vegetation, animals, aesthetic values, and soiling and deterioration of materials. The standards for total suspended particulates (TSP) and sulfur oxides ($SO_x$) for the annual mean values are as follows:

|  | TSP($ug/m^3$) | $SO_x$($ug/m^3$) |
|---|---|---|
| Primary standard | 75 | 80 |
| Secondary standard | 60 | 60 |

## TABLE 2
## WATER QUALITY ON PUBLIC BEACHES: 1981

| Beaches | No. of Samples | *Fecal Coliform Density Geometric Means (MPN/100 ml) |
|---|---|---|
| Oahu: | | |
| Ala Moana Park (Ewa) | 26 | 5.6 |
| Ala Moana Park (Center) | 10 | 4.1 |
| Ala Moana Park (Diamond Head) | 11 | 5.4 |
| Elks Club Beach | 12 | 4.0 |
| Ewa Beach | 12 | 6.3 |
| Ft. DeRussy Beach | 12 | 5.2 |
| Gray's Beach | 24 | 5.7 |
| Hanauma Bay | 12 | 8.1 |
| Kahana Park Beach | 12 | 43.6 |
| Kahanamoku Beach | 11 | 4.5 |
| Kahanamoku Lagoon (Diamond Head) | 25 | 79.8 |
| Kailua Bay Outfall Shoreline | 12 | 2.3 |
| Kailua Beach Park | 12 | 3.7 |
| Kokokahi Pier | 12 | 25.6 |
| Kuhio Beach | 18 | 5.2 |
| Public Bath Beach | 18 | 3.6 |
| Tavern Beach | 12 | 3.5 |
| Sand Island Pt. #1 | 12 | 2.0 |
| Sand Island Pt. #2 | 12 | 15.1 |
| Sand Island Pt. #3 | 12 | 4.4 |
| Sand Island Pt. #4 | 12 | 7.7 |
| Kauai: | | |
| Brennecke Beach | 4 | 2.0 |
| Hanalei Bay Landing | 4 | 16.7 |
| Poipu Beach | 4 | 2.7 |
| Hawaii: (Hilo) | | |
| Exit of Ice Pond | 10 | 178.3 |
| Leileiwi Beach Park | 10 | 219.3 |
| Onekahakaha | 10 | 8.2 |
| Puhi Bay #3 | 10 | 30.4 |

*The geometric mean standard for fecal coliform density is 200 per 100 ml.

TABLE 2 (cont'd.)
WATER QUALITY ON PUBLIC BEACHES: 1981

| Beaches | No. of Samples | *Fecal Coliform Density Geometric Means (MPN/100 ml) |
|---|---|---|
| Hawaii: (Kona) | | |
| Hapuna Beach | 11 | 19.5 |
| Kahaluu Beach | 10 | 2.0 |
| Kealakekua Bay (off curio stand) | 11 | 2.3 |
| Kealakekua Bay (off canoe landing) | 11 | 2.4 |
| Magic Sands Beach | 11 | 2.4 |
| Puako Beach Lots (middle) | 11 | 9.0 |
| Puako Beach Lots (far end) | 11 | 18.6 |
| Spencer Beach Park | 11 | 29.5 |
| Maui: | | |
| Hukilau Hotel Shoreline | 12 | 2.0 |
| Kahului Breakwater | 12 | 2.0 |
| Wailuku Breakwater | 12 | 2.8 |

*The geometric mean standard for fecal coliform density is 200 per 100 ml.

Source: Hawaii State Department of Health,
Pollution Investigation and Enforcement Branch, records

## POLLUTION TECHNICAL REVIEW BRANCH

One of the primary functions of the Pollution Technical Review Branch is the administration of a permit and registration system for air, water and solid waste programs by reviewing and evaluating applications and engineering reports and plans.

The Branch also coordinates construction grant activities for the construction of municipal wastewater treatment facilities between the counties and the U.S. Environmental Protection Agency.

## CONSTRUCTION GRANTS PROGRAM

The major function of Project Management Section #1 is to administer the Construction Grants Program for public wastewater treatment works pursuant to P.L. 92-500. Under the said program, 75 per cent of the cost of constructing public treatment facilities are financed with federal funds, 10 per cent by state funds and 15 per cent by county funds. A total of $33,908,347 of federal funds were awarded to wastewater treatment works projects in Hawaii during 1981.

The administering of the program includes review of grant applications, facilities plans, environmental impact statements, infiltration-inflow analysis, construction plans and specifications, payment requests, construction activities contracts and other technical documents. A project is broken down into three (3) steps which include Step 1 (development of a facilities plan), Step 2 (development of construction plans and specifications) and Step 3 (construction).

The following statistics indicate federal grants awarded for various project and projects completed:

Table 1

| Grants Awarded for | Project Step | Federal Grant Amount |
|---|---|---|
| Lualualei PS-FM | 3 | $ 2,709,954 |
| Ala Moana PS | 3 | 558,789 |
| Kailua-Kona FP | 1 | 5,836 |
| Ewa IS (West) | 3 | 164,045 |
| Ewa Beach PS | 3 | 241,216 |
| Ewa Beach CS, Sec. 2 | 3 | 251,215 |
| Mililani Eff. Dis. | 2 | 56,470 |
| Jade St. Trunk Sewer | 3 | 769,017 |
| Ala Moana FM, Sec. 1 | 3 | 1,604,029 |
| Koloa-Poipu FP | 1 | 56,096 |
| Lanai City STP & IS | 2-3 | 3,626,250 |
| 205(g) | | 2,345,400 |
| Honouliuli STP, Inc. 3 | 3 | 4,106,039 |
| Paia SPS & FM | 2 | 392,867 |
| Waianae STP | 2 | 852,509 |
| Mililani STP (Ph. 2) | 3 | 5,417,091 |
| Mililani STP (Ph. 1) | 3 | 4,290,950 |
| Napili-Honokowai IS | 3 | 6,456,230 |
| Ahuimanu PS | 2 | 4,344 |
| | | $33,908,347 |

Table 2

| Project Completed | Project Step |
|---|---|
| Lanai City | 1 |
| Paia FM and PS | 2 |
| Mililani Effluent Disposal System | 2 |
| Lihue STP | 3 |
| Hanamaulu IS | 3 |
| Ala Moana FM, Sec. 3 | 3 |
| Pearl City FM, Sec. 1B | 3 |
| Kahului SPS | 3 |
| Pearl City FM Sec. 2 | 3 |
| Kulaimano | 3 |
| Hanapepe-Eleele | 3 |
| Waimea | 3 |

## NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMITS SECTION

Under federal and state laws, no person can discharge pollutants into a waterway from a point source unless a permit is obtained from the Department, which regulates what may be discharged and how much. Point sources include private and municipal wastewater treatment facilities, manufacturing plants, agriculture, wholesale, retail and other commercial establishments. Those obtaining permits comply with firm, legally enforceable requirements to meet applicable state laws. At present, the Department administers 120 NPDES permits.

The Department currently administers an interim General Pretreatment Program for EPA. This program controls wastewater discharges into municipal sewer systems. This program will eventually be delegated to the Counties.

Another program administered by the Department is the Permit to Operate Private Wastewater Treatment Works (WTW) that discharge pollutants to subsurface or irrigation systems. The Department currently enforces 182 permits over private WTW's. This program will eventually lead up to the delegation of another joint federal-state program for regulating wastewater discharge into the ground for the purposes of protecting groundwater resources. There are an estimated 500 injection wells in the State which transmit wastewater of some kind into groundwaters. The proposed Underground Injection Control Program will determine and control any threat these wastewaters will have on our present and future drinking water resources.

Table 3

| Permits Issued or Renewed | |
|---|---|
| NPDES | 21 |
| Permits to Operate Private STP's | 143 |
| Zones of Mixing | 5 |
| NPDES Permits Modified | 2 |

## AIR POLLUTION CONTROL AND SOLID WASTE MANAGEMENT PROGRAMS

Air and Solid Waste permits are also administered by the Pollution Technical Review Branch. Air permits are issued to stationary sources of air pollution. Its primary objective is to safeguard our State Ambient Air Quality Standards. Solid waste permits are issued to sanitary landfills, open dumps and processing facilities, such as reclamation plants, transfer stations and incinerators. Its primary objective is to close open dumps or upgrade them to sanitary landfills.

Table 4

| | |
|---|---|
| Air Pollution Control (1981 calendar year) | |
| Authority to Construct Permits Issued | 36 |
| Permit to Operate Issued | 80 |
| Solid Waste Management | |
| Permits Issued | 19 |

## SUMMARY - CALENDAR YEAR 1981

The principal activity of the Sanitation Branch is to maintain a sanitary and healthful environment for the people in Hawaii by providing inspectional, educational and enforcement activities. Sanitarians investigate and abate insanitary conditions and health hazards, prevent the creation of public health nuisances and minimize insanitary conditions which may be a threat to health. Inspections are made of food and food service establishments; milk plants, frozen dessert manufacturing plants; dairy farms; dwelling units, hotels and other multi-dwelling units; public swimming pools; barber shops; mortuaries and cemeteries; laundries; private sewage disposal systems and various other premises for certificates of approval, clearances for licensure or for permit issuance; or for compliance with public health standards and requirements.

The total number of inspections decreased from 61,994 in 1980 to 55,851 in 1981. The total number of insanitary conditions abated decreased from 17,972 in 1980 to 13.133 in 1981. This decrease was due to the above normal turnover in personnel and vacancies and to the program objective of standardizing all the sanitarians in the uniform interpretation and enforcement of the food and food service Sanitation Code. Mandatory informal and formal training sessions in food sanitation necessitated the sanitarians to be absent from their inspectional duties.

The Drinking Water Program of the Sanitation Branch is responsible for regulating the State's 164 known "public water systems" as defined by Chapter 20, Title 11, Administrative Rules. The Program includes such functions as the surveillance and monitoring of these systems, provisions of technical assistance to water system owners and operators, the review for approval/disapproval of plans and specifications for new potable water sources and new or modified distribution systems, maintenance of laboratory capability to perform routine and special analyses, enforcement actions to require systems to comply with regulations, administration of a cross connection control and backflow prevention program and maintenance of an emergency response program as well as other related functions.

## TABLE 1

## AVERAGE DAILY PRODUCTION OF PASTEURIZED MILK BY ISLAND STATE OF HAWAII, 1981

| Island | Average Daily Production (Pounds) |
|---|---|
| Total | 440,331 |
| Oahu . . . . . . . . . | 311,064 |
| Hawaii . . . . . . . . | 47,800 |
| Maui County* . . . . | 32,491 |
| Kauai . . . . . . . . | 48,976 |

*Includes the islands of Maui, Molokai and Lanai

No retail raw milk is sold for human consumption in the State.

2.15 pounds = 1 quart

## TABLE 2

## DAIRIES AND MILK PLANTS AS OF DECEMBER 31, 1981 BY TYPE AND ISLAND

| TYPE | TOTAL | Island | | | |
|---|---|---|---|---|---|
| | | Oahu | Hawaii | Maui County* | Kauai |
| Pasteurization Plants . . . . . | 5 | 2 | 1 | 1 | 1 |
| Milk Plant Producers . . . . . | 28 | 21 | 5 | 1 | 1 |

*Includes the islands of Maui, Molokai and Lanai

## TABLE 3

## DISTRIBUTION OF SANITARY INSPECTIONS BY TYPE AND ISLAND
STATE OF HAWAII, 1981

| Type of Inspection | TOTAL | ISLAND | | | |
|---|---|---|---|---|---|
| | | Oahu | Hawaii | Maui County* | Kauai |
| Total Inspections | 55,851 | 31,604 | 11,425 | 6,830 | 5,992 |
| Dwellings | 4,804 | 2,923 | 190 | 406 | 1,285 |
| Apartments | 902 | 745 | 57 | 92 | 8 |
| Hotels | 674 | 393 | 46 | 158 | 77 |
| Lodging Houses | 45 | 40 | - | 2 | 3 |
| Tenements | 142 | 140 | - | 2 | - |
| Adult Family Boarding Homes | 296 | 246 | 33 | 5 | 12 |
| Care Homes | 363 | 289 | 25 | 15 | 34 |
| Day Care Centers | 439 | 276 | 82 | 45 | 36 |
| Kindergartens, Schools | 731 | 413 | 67 | 174 | 77 |
| Institutions, Hospitals | 1,108 | 115 | 383 | 589 | 21 |
| Funeral Establishments, Cemeteries | 76 | 34 | 13 | 17 | 12 |
| Liquor Dispensers | 2,835 | 2,280 | 224 | 249 | 82 |
| Grocery Stores | 3,068 | 2,174 | 434 | 386 | 74 |
| Markets | 1,445 | 1,059 | 212 | 117 | 57 |
| Bottling Plants, Canneries | 58 | 50 | 2 | 3 | 3 |
| Food Manufacturers | 3,081 | 2,197 | 473 | 340 | 71 |
| Restaurants, Cafeterias, Drive-Ins, Lunch Counters, Etc. | 11,954 | 9,647 | 978 | 982 | 347 |
| Food Sales | 1,336 | 661 | 296 | 254 | 125 |
| Lunch Wagons | 985 | 878 | 49 | 33 | 25 |
| Food Peddlers | 74 | 63 | 6 | 4 | 1 |
| Dairy Farms, Milk Plants | 949 | 663 | 199 | 52 | 35 |
| Frozen Dessert Plants | 119 | 78 | 8 | 9 | 24 |
| Dispensing Freezers, Shave Ice Outlets | 665 | 275 | 142 | 86 | 162 |
| Vending Machine Operations | 3 | 1 | 2 | - | - |
| Warehouses | 675 | 583 | 5 | 74 | 13 |
| Boarding Houses | 36 | 19 | 12 | - | 5 |
| Hog Ranches, Poultry Farms, Feed Lots | 145 | 82 | 10 | 19 | 34 |
| Slaughterhouses | 38 | 4 | 6 | 10 | 18 |
| Vegetable Gardens | 15 | 2 | 2 | 1 | 10 |
| Flower Gardens | 1 | 1 | - | - | - |
| Barber Shops, Beauty Parlors | 238 | 166 | 21 | 25 | 26 |
| Massage Parlors, Reducing Salons | 50 | 24 | 6 | 9 | 11 |
| Tattoo Shops | 26 | 25 | - | 1 | - |
| Clothes Cleaners, Laundries | 108 | 66 | 3 | 29 | 10 |
| Secondhand Dealers | 2 | 2 | - | - | - |
| Mattress Dealers | 9 | 1 | - | 2 | 6 |
| Amusement Places, Parks, Playgrounds | 688 | 283 | 162 | 227 | 16 |
| Recreational Trailer Camps | 9 | 4 | 2 | 1 | 2 |
| Industrial Plants, Small Shops, General Merchandise | 1,322 | 165 | 68 | 1,025 | 64 |
| Swimming Pools | 801 | 468 | 126 | 70 | 137 |
| Household Sewage Disposal Systems, House Drain, Sewer | 5,624 | 996 | 3,143 | 631 | 854 |
| Subdivisions | 916 | 224 | 179 | 98 | 415 |
| Unclassified | 8,996 | 2,849 | 3,759 | 588 | 1,800 |

*Includes the islands of Maui, Molokai and Lanai

## TABLE 4

## SUMMARY OF ACTIVITIES BY SANITARIANS
## STATE OF HAWAII, 1981

| A. INSPECTION, INVESTIGATION, ENFORCEMENT | Oahu | Hawaii | Maui County* | Kauai | Total |
|---|---|---|---|---|---|
| 1. Insanitary Practices and Hazardous Conditions Abated | | | | | |
| Structures Repaired | 125 | 20 | 22 | 6 | 173 |
| Plumbing, Fixtures Repaired | 39 | 9 | 4 | 2 | 54 |
| Water Supply Violations Corrected | 22 | 6 | 12 | 4 | 44 |
| Sewage Disposal Violations Corrected | 162 | 214 | 294 | 52 | 722 |
| Ventilation Corrected | 8 | 4 | 5 | 29 | 46 |
| Floor, Walls, Ceiling Cleaned | 65 | 6 | 6 | - | 77 |
| Streets, Alleyways, Yards, Cleaned of Rubbish, Etc. | 101 | 11 | 12 | - | 124 |
| Garbage Containers, Conveyances Corrected | 53 | 2 | 13 | 1 | 69 |
| Domestic Animals, Poultry Nuisances Abated | 119 | 7 | 15 | 12 | 153 |
| Vermin, Rodent, Birds, Animal Nuisances Abated | 47 | 7 | 3 | 6 | 63 |
| Food Equipment Replaced, Repaired | 69 | - | 1 | - | 70 |
| Food Equipment Utensils Cleaned | 10 | 1 | 10 | - | 21 |
| Food Equipment Utensils Sanitized | 18 | 3 | - | - | 21 |
| Food Equipment Utensils Properly Stored, Handled | 19 | 2 | 1 | - | 22 |
| Food Storage, Display, Handling Corrected | 21 | 1 | 2 | - | 24 |
| Insanitary Personnel Practices Abated | 17 | 3 | 1 | - | 21 |
| Food Handlers' Certificate Obtained | 3 | - | 2 | - | 5 |
| Toilet Room and Facilities Cleaned, Repaired | 30 | 8 | 12 | 1 | 51 |
| Barber, Beauty Shop Instruments Cleaned, Sanitized | 12 | - | - | - | 12 |
| Swimming Pool Disinfected; pH Maintained | 43 | 2 | 7 | 8 | 60 |
| Depth Marking Violations Corrected | 6 | 4 | - | 2 | 12 |
| Swimming Pool Safety Violations Corrected | 45 | 14 | 9 | 4 | 72 |
| Bacteriological Standards Met | 3 | 1 | - | 1 | 5 |
| Abnormal Milk Excluded | 1 | 2 | - | - | 3 |
| Milking Procedures Corrected | 5 | 1 | - | - | 6 |
| Thermometric Controls in Compliance | 3 | 1 | 3 | - | 7 |
| Pressure Differential of Pasteurizer Met | 1 | - | - | - | 1 |
| Holding Time of Pasteurizer Met | - | - | - | - | - |
| Required Data on Recorder-Controller Charts Furnished | 1 | - | - | - | 1 |
| Miscellaneous Nuisances Abated | 155 | 25 | 71 | 24 | 275 |
| Total Corrections Made | 1,203 | 354 | 505 | 152 | 2,214 |

TABLE 4 (Continued)

| A. INSPECTION, INVESTIGATION, ENFORCEMENT | Oahu | Hawaii | Maui County* | Kauai | Total |
|---|---|---|---|---|---|
| 2. Field Test for Cl, pH, Alk., Sed., Abnormal Milk, Pasteurization Equipment, etc. | 495 | 2,311 | 1,044 | 503 | 4,353 |
| 3. Samples Collected: Milk, Food, Water, Swab, etc. | 657 | 2,320 | 952 | 758 | 4,687 |
| 4. Complaints Investigated | 2,103 | 205 | 143 | 160 | 2,611 |
| Warnings Given | 542 | 253 | 32 | 29 | 856 |
| Verbal Orders Given | 1,014 | 303 | 448 | 211 | 1,976 |
| Verbal Orders Finished | 914 | 293 | 505 | 230 | 1,942 |
| Total Verbal Orders Unfinished | 481 | 186 | 150 | 31 | 848 |
| Written Orders Given | 39 | 1 | 7 | 14 | 61 |
| Written Orders Finished | 47 | - | 23 | 14 | 84 |
| Total Written Orders Unfinished | 22 | 1 | 2 | 2 | 27 |
| 5. Certificates Issued | 802 | 17 | 94 | 196 | 1,109 |
| 6. Permits Issued | 66 | 5 | 119 | 22 | 212 |
| 7. Permits Degraded | - | - | - | - | - |
| 8. Permits Suspended, Revoked | - | - | - | 4 | 4 |
| 9. Prosecutions | 1 | - | - | - | 1 |

| B. EDUCATION | Oahu | Hawaii | Maui County* | Kauai | Total |
|---|---|---|---|---|---|
| 1. Food, Milk Handlers' Class | 16 | - | 3 | - | 19 |
| 2. Workshops, Meetings | 98 | 123 | 40 | 55 | 316 |
| 3. In-Service Training | 150 | 5 | 9 | - | 164 |

| C. TECHNICAL REVIEW AND CONSULTATION PROVIDED | Oahu | Hawaii | Maui County* | Kauai | Total |
|---|---|---|---|---|---|
| | 535 | 680 | 163 | 2,732 | 4,110 |

*Includes the islands of Maui, Molokai and Lanai

## TABLE 5

## DAILY SUMMARY OF FOOD SERVICE AND FOOD ESTABLISHMENT
## STATE OF HAWAII, 1981

| 1. INSPECTION, INVESTIGATION, ENFORCEMENT | TOTAL | Oahu | Hawaii | Maui County* | Kauai |
|---|---|---|---|---|---|
| A. Insanitary Practices and Hazardous Conditions Abated | | | | | |
| 1. Food Source, Wholesome | 124 | 61 | 26 | 32 | 5 |
| 2. Food--Original Container, Properly Labeled | 140 | 127 | 7 | 3 | 3 |
| 3. Potentially Hazardous Food Meets Temperature Requirements | 177 | 128 | 22 | 20 | 7 |
| 4. Facilities to Maintain Product Temperature | 55 | 15 | 9 | 18 | 13 |
| 5. Thermometers Provided and Conspicuous | 240 | 140 | 15 | 83 | 2 |
| 6. Potentially Hazardous Food Properly Thawed | 108 | 59 | 3 | 44 | 2 |
| 7. Unwrapped and Potentially Hazardous Food Not Re-served | 6 | 5 | - | 1 | - |
| 8. Food Protection--Storage, Preparation, Display, Service Transportation | 1,187 | 938 | 64 | 173 | 12 |
| 9. Handling of Food (Ice) Minimized | 54 | 40 | 3 | 11 | - |
| 10. Food (Ice) Dispensing Utensils Properly Stored | 138 | 93 | 16 | 25 | 4 |
| 11. Personnel Infections, Communicable Disease Restricted; TB Clearance Card | 2,161 | 2,016 | 27 | 118 | - |
| 12. Hands Washed and Clean, Good Hygienic Practice | 109 | 88 | 10 | 8 | 3 |
| 13. Clean Clothes, Hair Restraints | 391 | 357 | 21 | 10 | 3 |
| 14. Food Contact Surfaces: Designed, Constructed, Maintained, Installed | 365 | 304 | 29 | 30 | 2 |
| 15. Non-Food Contact Surfaces: Designed, Constructed, Maintained, Installed | 310 | 232 | 32 | 46 | - |
| 16. Dishwashing Facilities: Designed, Constructed, Maintained, Installed | 114 | 73 | 8 | 29 | 4 |
| 17. Accurate Thermometers | 45 | 27 | 3 | 14 | 1 |
| 18. Single-Service Articles, Storage, Dispensing | 106 | 88 | 8 | 10 | - |
| 19. No Re-Use of Single-Service Articles | 4 | 1 | 3 | - | - |
| 20. Pre-Flushed, Scraped, Soaked | - | - | - | - | - |
| 21. Wash, Rinse Water: Clean, Proper Temperature | 15 | 7 | 4 | 4 | - |
| 22. Sanitization Rinse: Clean, Temperature, Concentration | 166 | 125 | 12 | 13 | 16 |
| 23. Wiping Cloths: Clean, Use Restricted | 20 | 19 | 1 | - | - |
| 24. Food-Contact Surfaces of Equipment and Utensils Clean | 1,256 | 1,084 | 53 | 116 | 3 |
| 25. Non-Food Contact Surfaces of Equipment and Utensils Clean | 1,270 | 1,064 | 72 | 132 | 2 |
| 26. Storage, Handling of Clean Equipment-Utensils | 193 | 139 | 9 | 45 | - |
| 27. Water Source, Safe: Hot & Cold Under Pressure | 82 | 74 | 4 | 1 | 3 |

TABLE 5 (Continued)

| 1. INSPECTION, INVESTIGATION, ENFORCEMENT | TOTAL | Oahu | Hawaii | Maui County* | Kauai |
|---|---|---|---|---|---|
| 28. Sewage and Waste Water Disposal | 66 | 43 | 6 | 12 | 5 |
| 29. Plumbing--Installed, Maintained | 190 | 166 | 13 | 9 | 2 |
| 30. Plumbing--Cross-Connection, Back Siphonage, Backflow | 79 | 66 | 6 | 6 | 1 |
| 31. Toilet & Handwashing Facilities--Number, Convenient, Accessible, Installed | 109 | 65 | 8 | 25 | 11 |
| 32. Toilet Rooms, Self-Closing Doors, Good Repair, Clean Hand Cleanser, Sanitary Hand-Drying. Proper Waste Receptacles | 674 | 532 | 10 | 124 | 8 |
| 33. Garbage & Refuse Disposal Receptacles Covered: Adequate No., Insect/Rodent Proof, Clean | 142 | 89 | 14 | 38 | 1 |
| 34. Outside Storage Area, Enclosures Properly Constructed, Clean: Incineration Controlled | 51 | 44 | 3 | 4 | - |
| 35. Presence of Insects, Rodents—Outer Openings Protected, Turtles, Other Animals, Proper Insecticides | 787 | 675 | 40 | 57 | 15 |
| 36. Floors: Constructed, Drained, Clean, Good Repair, Covering Installation, Dustless Cleaning Methods | 698 | 495 | 51 | 150 | 2 |
| 37. Walls, Ceiling, Attached Equipment: Constructed, Good Repair, Clean, Surfaces, Dustless Cleaning Methods | 674 | 526 | 49 | 96 | 3 |
| 38. Lighting Provided as Required | 25 | 22 | 3 | - | - |
| 39. Rooms and Equipment--Vented as Required | 96 | 88 | 6 | 2 | - |
| 40. Dressing Rooms--Rooms Clean, Lockers Provided, Facilities Clean | 20 | 14 | 1 | 3 | 2 |
| 41. Toxic Items Properly Stored, Labeled, Used | 362 | 303 | 22 | 31 | 6 |
| 42. Premises: Maintained, Free of Litter, Unnecessary Articles, Cleaning/Maintenance Equipment Properly Stored, Authorized Personnel | 293 | 251 | 27 | 11 | 4 |
| 43. Complete Separation from Living/Sleeping Quarters, Laundry | 10 | 10 | - | - | - |
| 44. Clean, Soiled Linen Properly Stored | 21 | 18 | 2 | 1 | - |
| Total Corrections Made | 13,133 | 10,711 | 722 | 1,555 | 145 |
| B. Field Test for Cl, pH, Alk., etc. | 1,617 | 88 | 210 | 1,319 | - |
| C. Samples Collected: Food, Water, Swabs, etc. | 1,816 | 1,433 | 168 | 209 | 6 |
| D. Complaints Investigated | 830 | 692 | 52 | 50 | 36 |
| E. Orders and Warnings | | | | | |
| Warnings Given | 3,393 | 2,948 | 341 | 66 | 38 |
| Verbal Orders Given | 10,703 | 8,694 | 708 | 1,093 | 208 |
| Verbal Orders Finished | 8,899 | 6,682 | 530 | 1,549 | 138 |

TABLE 5 (Continued)

| 1. INSPECTION, INVESTIGATION, ENFORCEMENT | TOTAL | Oahu | Hawaii | Maui County* | Kauai |
|---|---|---|---|---|---|
| Total Verbal Orders Unfinished | 6,281 | 4,954 | 802 | 279 | 246 |
| Written Orders Given | 44 | 38 | 3 | 2 | 1 |
| Written Orders Finished | 45 | 32 | - | 12 | 1 |
| Total Written Orders Unfinished | 16 | 13 | 3 | - | - |
| F. Certificates Issued | 4,435 | 3,875 | 47 | 510 | 3 |
| G. Permits Issued | 1,245 | 718 | 345 | 126 | 56 |
| H. Permits Suspended, Revoked | 2 | 1 | - | - | 1 |
| I. Prosecutions | 1 | - | - | - | 1 |
| **2. EDUCATION** | **TOTAL** | **Oahu** | **Hawaii** | **Maui County*** | **Kauai** |
| A. Food Handlers' Class | 48.5 | 12.5 | 34 | 2 | - |
| B. Workshops, Meetings | 150 | 77 | 46 | 10 | 17 |
| C. In-Service Training | 100 | 98 | - | 2 | - |
| **3. TECHNICAL REVIEW AND CONSULTATION PROVIDED** | **TOTAL** | **Oahu** | **Hawaii** | **Maui County*** | **Kauai** |
|  | 1,069 | 149 | 420 | 144 | 356 |

*Includes the islands of Maui, Molokai and Lanai

TABLE 6

PUBLIC WATER SYSTEMS*
STATE OF HAWAII, 1981

| SYSTEMS | Total | ISLAND | | | | | |
|---|---|---|---|---|---|---|---|
| | | Hawaii | Maui | Molokai | Lanai | Oahu | Kauai |
| Municipal Systems | 50 | 19 | 8 | 3 | - | 6 | 14 |
| Private Systems | 71 | 22 | 11 | 3 | 2 | 23 | 10 |
| State Systems | 11 | 1 | 2 | 2 | - | 3 | 3 |
| Federal Systems | 32 | 3 | 3 | - | - | 24 | 2 |
| Total | 164 | 45 | 24 | 8 | 2 | 56 | 29 |

*A Public Water System is defined as a system that has at least fifteen service connections or regularly serves an average of at least twenty-five individuals daily at least 60 days out of the year.

## SUMMARY

The objective of the Vector Control Branch is to prevent outbreaks of vector-borne diseases and to suppress serious vector nuisances. This is achieved through program activities designed to maintain vector populations at low levels and to exercise surveillance and control against the accidental introduction of new vector species and their diseases into Hawaii.

The statistics of the major activities of the Vector Control Branch for 1981 are presented in Tables 1 and 3. Table 2 includes the details for small mammal trapping.

In Table 1, the activities which showed significant increases in 1981 were premises inspections and three new field activities including yellowjacket nest eradication, yellowjacket trapping, and inspection of demolition sites. Activities which showed a decrease in 1981 were mosquito fish stocking, storm drains treated, mosquito and other vector breeding areas treated, and small mammals retrieved. These decreases resulted from (1) the favorable climatic conditions which reduced the need for mosquito abatement activities, (2) the use of dursban 10CR in storm drains, and (3) the shift in manpower to monitor and control the emerging problems created by the western yellowjackets.

Table 2 presents the small mammal retrieval data by islands. This small mammal trapping activity actually increased in 1981 on all islands but the number of small mammals retrieved was less than in 1980.

Table 3 presents a summary of laboratory tests and examinations conducted to monitor the Statewide status of plague, murine typhus, and leptospirosis in the small mammal population. Although the total number of analyses conducted remains about the same between 1980 and 1981, there was a significant decrease in the number of leptospirosis analyses for 1981. This was due to the completion of the departmental leptospirosis survey project.

Note: A former Table, "Table 4, Insects Recovered in Aircraft Entering Hawaii by Month" which was included in the Vector Control Report up to 1980, is discontinued because of a change in our regulation. To parallel the Federal regulation, our State regulation was revised in 1981 (Administrative Rule 11-26) to forego the need for routine disinsection of aircraft, and instead reserve the right for the Director of Health to require the spraying in time of need, such as an aircraft arriving from an area that is infected with insect-borne communicable diseases.

### TABLE 1

### PRINCIPAL ACTIVITIES OF THE VECTOR CONTROL BRANCH ON THE ISLANDS OF OAHU, HAWAII, MAUI AND KAUAI

### STATE OF HAWAII, 1981

| Activity | Total | Island | | | |
|---|---|---|---|---|---|
| | | Oahu | Hawaii | Maui | Kauai |
| Premises Inspected | 17,513 | 1,936 | 13,340 | 2,183 | 54 |
| Vector Service Requests Investigated | 3,862 | 1,903 | 1,557 | 289 | 113 |
| Mosquitoes | 542 | 405 | 73 | 49 | 15 |
| Rats | 1,822 | 930 | 664 | 154 | 74 |
| Flies | 252 | 168 | 54 | 25 | 5 |
| Fleas | 283 | 146 | 108 | 27 | 2 |
| Others | 963 | 254 | 658 | 34 | 17 |
| Biological Control with Fishes* (no. stocked) | 171,390 | 28,700 | 590 | 119,100 | 23,000 |
| Total Small Mammals Trapped | 12,082 | 395 | 9,612 | 2,075 | ... |
| Field Operation | 8,033 | 394 | 5,622 | 2,017 | ... |
| Ports of Entry (piers & airport) | 4,049 | 1 | 3,990 | 58 | ... |
| Vector Breeding Sources Abated | | | | | |
| Storm Drains Treated (number) | 32,706 | 19,482 | 45 | 13,179 | - |
| Mosquito Breeding & Other Areas Treated (acres) | 10,527 | 2,297 | 1,662 | 5,205 | 1,363 |
| Yellowjacket Nests Eradicated | 620 | - | 608 | 2 | 10 |
| Entomological Surveillance | | | | | |
| Mosquito Light Trap Stations | 107 | 54 | 29 | 8 | 16 |
| Fly Bait Stations | 540 | 430 | 110 | - | - |
| Yellowjacket Stations | 4,594 | 24 | 4,570 | - | - |
| Technical Service and Consultation Provided | 10,579 | 7,009 | 956 | 1,393 | 1,221 |
| Number of Demolition Sites Inspected | 336 | 316 | 14 | 6 | - |

* *Gambusia*, *Poecilia* (*Lebistes*), *Tilapia*, etc.

### TABLE 2

### TOTAL SMALL MAMMAL RETRIEVALS BY AREA AND SPECIES

### STATE OF HAWAII, 1981

| Island | Trap Days* | Total Small Mammal Retrievals | Species | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Rattus | | | | | Mus musculus | | H. auropunctatus | |
| | | | Total | | exulans | norvegicus | rattus | Number | Percent | Number | Percent |
| | | | Number | Percent | | | | | | | |
| Total | 244,231 | 12,082 | 5,773 | 47.8 | 1,795 | 473 | 3,505 | 3,610 | 29.9 | 2,699 | 22.3 |
| Hawaii | 167,239 | 9,612 | 3,599 | 37.4 | 871 | 447 | 2,281 | 3,363 | 35.0 | 2,650 | 27.6 |
| Oahu | 34,706 | 393 | 375 | 94.9 | 14 | 26 | 335 | 9 | 2.3 | 11 | 2.8 |
| Maui | 42,286 | 2,075 | 1,799 | 86.7 | 910 | - | 889 | 238 | 11.5 | 38 | 1.8 |
| Kauai | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |

* Trap Days = No. traps X No. of days trapped

## TABLE 3

## SUMMARY OF LABORATORY ACTIVITIES AND FINDINGS BY AREA

## STATE OF HAWAII, 1981

| Type of Zoonoses | | | Total | Geographic Area | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Hawaii | | Oahu | Maui[a] | Kauai |
| | | | | West | East | | | |
| Plague | | Macroscopic Exams of Small Mammals... | 5,110 | 2,132 | 1,359 | 742 | 877 | ... |
| | | Animal Inoculations....... | - | - | - | - | - | ... |
| | | Bacteriologic Cultures........ | - | - | - | - | - | ... |
| | | No. of Burrows Examined........ | - | - | - | - | - | ... |
| | Host Animals | No. Combed........ | 4,385 | 1,735 | 1,402 | 371 | 877 | ... |
| | | No. Infested...... | 7 | - | - | 2 | 5 | ... |
| | | Fleas Recovered..... | 20 | - | - | 2 | 18 | ... |
| | | No. of Serological Samples Collected. | 2,444 | 771 | 468 | 343 | 862 | ... |
| | | No. of Serological Determinations.... | 496[b] | 115 | 250 | 45 | 86 | ... |
| | | No. of Positive Serum Samples..... | - | - | - | - | - | ... |
| Leptospirosis | | No. of Animals Examined........ | 443 | ... | ... | 443 | ... | ... |
| | | No. of Cultures Examined........ | 922 | ... | ... | 922 | ... | ... |
| | | No. of Positive Animals-Culture.... | 80 | ... | ... | 80 | ... | ... |
| | | Percent Positive by Culture...... | 22.60[c] | ... | ... | 22.60 | ... | ... |
| | | No. of Culture Identifications.... | 82 | ... | ... | 82 | ... | ... |
| | | No. of Serological Samples Collected. | 371 | ... | ... | 371 | ... | ... |
| | | No. of Serological Determinations... | 1,088 | ... | ... | 1,088 | ... | ... |
| | | No. of Positive Serum Samples... | 16 | ... | ... | 16 | ... | ... |
| | | Percent Positive by Serology..... | 1.47 | ... | ... | 1.47 | ... | ... |
| Murine Typhus | | No. of Serological Samples Collected. | 3,099 | 1,182 | 905 | 318 | 694 | ... |
| | | No. of Serological Samples Examined.. | 2,557[b] | 970 | 678 | 295 | 614 | ... |
| | | No. of Positive Serum Samples... | 941 | 265 | 223 | 128 | 325 | ... |
| | | Percent Positive by Serology..... | 36.80 | 27.32 | 32.89 | 43.39 | 52.93 | ... |

[a] Includes islands of Maui, Molokai and Lanai.

[b] All serological determinations performed on Oahu.

[c] 22.60% derived from 80 positive cultures out of 354 rodent (rat) cultures examined. 568 of the 922 cultures examined were negative hamster cultures.

## SUMMARY

The Litter Control Office was established within the Department of Health pursuant to Act 2, First Special Session of the 1977 Legislature. The purpose of the office is to promote, coordinate and implement litter control in the State through public education and awareness, streamlined enforcement, continuing voluntary anti-litter campaigns, and requirements for litter receptacles.

"Litter" means all rubbish, refuse, waste material, garbage, trash, offal, or any debris of whatever kind or description, whether or not it is of value, and includes improperly discarded paper, metal, plastic, glass, or solid waste.

Table I shows the number of participating schools and individuals and the amount of aluminum cans and newspapers collected in the 1981 Statewide Recycling Campaign. The campaign was conducted during the month of April on the islands of Oahu, Maui, Kauai, Hawaii, and Molokai.

The number of citizen reports of litter violations are indicated in Table 2. The number of reported littered properties decreased 40% from 1979 to 1980 and remained about the same for 1981. The number of motor vehicles reportedly causing litter declined 33% from 1979 to 1980 and declined an additional 19% from 1980 to 1981.

Table 3 shows the number of litter bags that were made available to community organizations, youth groups, and the general public. Litter bags are available to the public upon request for litter control projects and promotional purposes.

Table 4 lists the various types of educational and promotional litter control materials distributed to organizations, agencies, firms and individuals. The total amounts distributed are shown by type of material.

### TABLE I

### STATE RECYCLING CAMPAIGN
### STATE OF HAWAII, APRIL 1981

| No. of Participating Schools | Approximate No. of Participating Individuals | No. of Pounds of Aluminum Cans Collected | No. of Pounds of Newspaper Collected | Total Dollars Earned |
|---|---|---|---|---|
| 150 | 240,000 | 175,000 | 1,970,000 | $64,000 |

## TABLE 2

## CITIZEN REPORTS OF LITTER VIOLATIONS ISLAND OF OAHU, 1979 - 1981

| Type of Reported Violation | Year | | |
|---|---|---|---|
| | 1979 | 1980 | 1981 |
| Littered Properties | 431 | 249 | 253 |
| Motor Vehicles Causing Litter | 472 | 315 | 256 |
| Total | 903 | 564 | 509 |

## TABLE 3

## LITTER BAGS PROVIDED FOR PUBLIC USE STATE OF HAWAII, 1981

| Type of Bag | Approximate No. Provided |
|---|---|
| State Logo Car Litter Bags | 48,000 |
| State Logo Litter Bags (30-gallon capacity) | 13,500 |
| Plain Litter Bags (30-gallon capacity) | 7,000 |
| Litter Bags Sponsored by Businesses (30-gallon capacity) | 12,000 |

## TABLE 4
## EDUCATIONAL AND PROMOTIONAL LITTER CONTROL MATERIALS DISTRIBUTED STATE OF HAWAII, 1981

| Type of Material | Total Amounts Distributed |
|---|---|
| Anti-litter Logo Decals | 65,000 |
| Coloring Sheets | 95,000 |
| Bumper Stickers | 11,000 |
| Posters | 6,000 |
| Other Materials a/ | 46,000 |

a/ Special flyers and promotional materials.

# MEDICAL HEALTH SERVICES DIVISION

# DIABETES SCREENING SURVEY

## Chronic Disease Branch

## Statistical Report - 1981

Table I shows the total number of persons screened and the new diabetics found by age and sex. While up from last year's figure of 2.6 per thousand new diabetics found, the overall trend in the past six years is downward. Even the percent of positive screenees has been steadily dropping.

Table II shows the rates of new diabetics found by ethnicity. Filipino and Hawaiian, Part-Hawaiian again show the highest rates (Puerto Rican and Korean had too few screened to be statistically significant). As in previous years, Caucasians showed the lowest rates.

Table III shows the diabetes survey by island. Hawaii and Kauai had the highest rate of new diabetics found, with Oahu a close third.

TABLE I

DEPARTMENT OF HEALTH
CHRONIC DISEASE BRANCH

DIABETES SCREENING SURVEY BY AGE AND SEX FOR JULY, 1980 - JUNE, 1981

|  | TOTAL SCREENED |  |  | POSITIVE SCREENEES |  |  |  |  |  | NEW DIABETICS |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  |  |  | NUMBER |  |  | PERCENT |  |  | NUMBER |  |  | RATE* |  |  |
|  | TOTAL | MALE | FEMALE | TOTAL | M | F | TOTAL | M | F | TOTAL | M | F | TOTAL | M | F |
| ALL AGES | 7,437 | 3,228 | 4,209 | 98 | 46 | 52 | 1.31 | 1.42 | 1.23 | 34 | 14 | 20 | 4.57 | 4.33 | 4.75 |
| UNDER 25 | 817 | 375 | 442 | 3 | 1 | 2 | 0.36 | 0.26 | 0.45 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 |
| 25-44 | 1,925 | 833 | 1,092 | 5 | 3 | 2 | 0.25 | 0.36 | 0.18 | 4 | 1 | 3 | 2.07 | 1.20 | 2.74 |
| 45-54 | 1,191 | 423 | 768 | 13 | 7 | 6 | 1.09 | 1.65 | 0.78 | 7 | 3 | 4 | 5.87 | 7.09 | 5.20 |
| 55-64 | 1,543 | 637 | 906 | 37 | 16 | 21 | 2.39 | 2.51 | 2.31 | 12 | 5 | 7 | 7.77 | 7.84 | 7.72 |
| 65-OVER | 1,961 | 960 | 1,001 | 40 | 19 | 21 | 2.03 | 1.97 | 2.09 | 11 | 5 | 6 | 5.60 | 5.20 | 5.99 |

*Number of new diabetics per thousand screenees.

TABLE II
DEPARTMENT OF HEALTH
CHRONIC DISEASE BRANCH

DIABETES SCREENING SURVEY BY RACE AND SEX FOR JULY, 1980 - JUNE, 1981

| | TOTAL SCREENED | | | POSITIVE SCREENEES | | | | | | NEW DIABETICS | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | NUMBER | | | PERCENT | | | NUMBER | | | RATE * | | |
| | TOTAL | MALE | FEMALE | TOTAL | M | F | TOTAL | M | F | TOTAL | M | F | TOTAL | M | F |
| ALL RACES | 7,437 | 3,228 | 4,209 | 98 | 46 | 52 | 1.31 | 1.42 | 1.23 | 34 | 14 | 20 | 4.57 | 4.33 | 4.75 |
| JAPANESE | 3,226 | 1,323 | 1,903 | 47 | 23 | 24 | 1.45 | 1.73 | 1.26 | 17 | 8 | 9 | 5.26 | 6.04 | 4.72 |
| CAUCASIAN | 1,723 | 746 | 977 | 12 | 7 | 5 | 0.69 | 0.93 | 0.51 | 2 | 0 | 2 | 1.16 | 0.00 | 2.04 |
| HAWAIIAN,PART-HA | 651 | 271 | 380 | 12 | 4 | 8 | 1.84 | 1.47 | 2.10 | 5 | 2 | 3 | 7.68 | 7.38 | 7.89 |
| CHINESE | 459 | 239 | 220 | 8 | 3 | 5 | 1.74 | 1.25 | 2.27 | 1 | 1 | 0 | 2.17 | 4.18 | 0.00 |
| FILIPINO | 561 | 272 | 289 | 11 | 6 | 5 | 1.96 | 2.20 | 1.73 | 5 | 2 | 3 | 8.91 | 7.35 | 10.38 |
| KOREAN | 55 | 23 | 32 | 3 | 2 | 1 | 5.45 | 8.69 | 3.12 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 |
| PUERTO RICAN | 42 | 25 | 17 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 |
| OTHER & UNSPEC. | 720 | 329 | 391 | 5 | 1 | 4 | 0.69 | 0.30 | 1.02 | 4 | 1 | 3 | 5.55 | 3.03 | 7.67 |

*Number of new diabetics per thousand screenees.

### TABLE III
### DEPARTMENT OF HEALTH
### CHRONIC DISEASE BRANCH

DIABETES SCREENING SURVEY BY ISLAND FOR JULY 1, 1980 - JUNE 30, 1981

| LOCATION | TOTAL SCREENED | NO. POSITIVE DEXTROSTIX | NO. POSITIVE AUTOANALYZER | NEW DIABETICS | RATE PER 1000 SCREENED |
|---|---|---|---|---|---|
| OAHU | 4,011 | 191 | 56 | 20 | 4.98 |
| HAWAII | 1,983 | 46 | 36 | 11 | 5.54 |
| MAUI | 620 | 17 | 0 | 0 | 0.00 |
| KAUAI | 527 | 14 | 5 | 3 | 5.69 |
| MOLOKAI | 296 | 1 | 1 | 0 | 0.00 |
| OTHERS | 0 | 0 | 0 | 0 | 0.00 |
| TOTAL | 7,437 | 269 | 98 | 34 | 4.57 |

## TABLE IV
## CHRONIC DISEASE BRANCH

### UTERINE CERVICAL CANCER SCREENING
### Calendar Year 1980-81

| Year | Number Screened | Number Abnormal Findings Referred |
|---|---|---|
| 1971 | 1,470 | 1 |
| 1972 | 4,559 | 10 |
| 1973 | 5,388 | 12 |
| 1974 | 3,914 | 33 |
| 1975 | 2,863 | 19 |
| 1976 | 3,585 | 37 |
| 1977 | 3,329 | 90 |
| 1978 | 2,839 | 52 |
| 1979 | 2,818 | 23 |
| 1980 | 2,574 | 36 |
| 1981 | 2,760 | 33 |

## TABLE V
## BLOOD PRESSURE SCREENING

### Fiscal year 1980-81

| | | |
|---|---|---|
| Total Screened | 7,664 | |
| Abnormals: | | |
| New Hypertensives Referred | | 1,237 |
| Known Hypertensives Referred | | 782 |
| Normal Known Hypertensives Screened | 464 | |

# EMERGENCY MEDICAL SERVICES SYSTEM BRANCH SUMMARY

The Emergency Medical Services System Branch was established by the State Legislature effective July 1, 1979 as the lead agency for the establishment and maintenance of a state comprehensive emergency medical services system throughout the State of Hawaii. Since 1979 the system has provided for personnel, personnel training, communications, transportation, facilities, coordination with emergency medical and critical care services, coordination and use of available public safety agencies, promotion of consumer participation, accessibility to care, mandatory standard medical record keeping, consumer information and education, independent review and evaluation, disaster linkage, and mutual aid agreements.

Table 1 displays the Numbers of Emergency Ground Ambulance Patient Records by Island for Calendar Years 1976-1980. Usage of the emergency ambulance services has increased 33% between 1976 and 1980.

Table 2 shows the number of Emergency Ground Ambulance stations by island and location. It also indicates which stations provide Basic Life Support and Advanced Life Support.

Basic Life Support is defined as a basic level of pre-hospital or inter-hospital emergency care that includes cardiopulmonary resuscitation, immobilization of fractures, control of hemorrhage, administration of oxygen, emergency childbirth care, extrication of patients from entrapment and other authorized techniques and procedures of a non-invasive nature.

Advanced Life Support is defined as a level of pre-hospital and inter-hospital emergency care that includes basic life support functions plus cardiac monitoring and defibrillation, administration of antiarrhythmic agents, intravenous therapy, administration of specific medications, drugs, and solutions, use of adjunctive medical devices, trauma care and other physician authorized techniques and procedures.

Table 3 shows by island, the level of severity and nature of incident for the 40,571 emergency ambulance records in calendar year 1980. From the total number of patient records, 61% were classified as minor and 22% were classified as either serious, critical or extremely critical.

The five leading nature of incidents as identified from the emergency ambulance records were (1) medical, (2) other trauma, (3) auto trauma, (4) cardiac, and (5) respiratory.

Figure 1-3 displays patient outcomes for the island of Oahu for high-risk trauma, cardiac and cardiopulmonary arrest cases transported by emergency ground ambulance units for the years 1969-1970 (pre-EMS) and 1974-1980 (EMS System).

Survival rates for the island of Oahu have risen over the past ten years for all high-risk categories:

| | 1970 | 1980 |
|---|---|---|
| trauma | 63% | 78% |
| cardiac | 33% | 77% |
| cardiopulmonary arrest | 0.7% | 6.3% |

Figure 4 displays patient outcomes for the islands of Kauai, Maui, Molokai, Lanai, and Hawaii for high-risk trauma, cardiac and cardiopulmonary arrest cases transported by emergency ground ambulance units for the years 1978-1980. Survival rates have increased between 1978-1980 from 81% to 86% for trauma and from 78% to 80% for cardiac, but have decreased from 8% to 2% for cardiopulmonary arrest cases.

TABLE 1

EMERGENCY GROUND AMBULANCE PATIENT RECORDS BY ISLAND
STATE OF HAWAII, CALENDAR YEARS 1976 - 1980

| ISLAND | PATIENT RECORDS | | | | |
|---|---|---|---|---|---|
| | 1976 | 1977 | 1978 | 1979 | 1980* |
| Oahu | 24,392 | 26,513 | 28,708 | 30,810 | 31,716 |
| Hawaii | 2,885 | 3,938 | 4,343 | 4,408 | 4,120 |
| Kauai | 866 | 910 | 907 | 811 | 1,134 |
| Maui | 2,187 | 2,493 | 2,639 | 3,498 | 3,309 |
| Lanai | 21 | 37 | 32 | 42 | 52 |
| Molokai | 144 | 223 | 261 | 233 | 240 |
| TOTAL | 30,495 | 34,114 | 36,890 | 39,802 | 40,571 |

SOURCE: EMSS Computer Masterfiles

* Preliminary 1980 data.

## TABLE 2

## STATE OF HAWAII
## EMERGENCY GROUND AMBULANCE STATIONS BY ISLAND BY LEVEL OF SERVICE*
## STATION NAMES INCLUDED IN PARENTHESES
## FISCAL YEAR 1982

| Island | Basic Life Support Ambulance Stations | Advanced Life Support Ambulance Stations | Total Ambulance Stations |
|---|---|---|---|
| Oahu | 1.25 (Waialua, Waimanalo) | 11 (Aiea, Kahuku, Kailua, Kaneohe, Pawaa, Queen's St. Francis, Wahiawa, Waianae, Wailupe, Waipahu) | 12.25 |
| Hawaii | 6 (Captain Cook, Hilo, Honokaa, Kau, Kohala, Kona) | 4 (Central, Kailua Kona, Waiakea, Waimea) | 10 |
| Kauai | 1 (Hanalei) | 2 (Hanapepe, Lihue) | 3 |
| Maui | - | 4 (Kahului, Kihei, Lahaina, Makawao) | 4 |
| Lanai | 1 (Lanai) | - | 1 |
| Molokai | - | 1 (Molokai) | 1 |
| Total | 9.25 | 22 | 31.25 |

*Stations are in operation 24 hours, 7 days a week except for the Waialua basic life support station on Oahu which operates 40 hours a week.

TABLE 3

EMERGENCY GROUND AMBULANCE PATIENT RECORDS BY ISLAND, SEVERITY AND NATURE OF INCIDENT
STATE OF HAWAII, CALENDAR YEAR 1980 a/

| Island | Severity | Auto Trauma b/ | Other Trauma b/ | Cardiac | Respiratory | Cardiopulmonary Arrest c/ | Neurological | Spinal Injury c/ | Obstetrical | Neonatal c/ |
|---|---|---|---|---|---|---|---|---|---|---|
| Oahu | Minor | 4,356 | 6,802 | 524 | 852 | — | 863 | 13 | 510 | 11 |
| | Serious | 463 | 887 | 1,088 | 693 | — | 587 | 2 | 91 | 4 |
| | Critical | 49 | 63 | 95 | 65 | — | 63 | 1 | — | 1 |
| | Extremely Critical | 31 | 52 | 241 | 164 | 30 | 33 | 1 | — | 1 |
| | Dead on Arrival of Ambulance d/ | 48 | 98 | 218 | 159 | 25 | 27 | — | 3 | — |
| | Blank | 74 | 98 | 21 | 31 | 3 | 18 | — | 18 | 1 |
| | TOTAL | 5,021 | 8,000 | 2,187 | 1,964 | 58 | 1,591 | 17 | 622 | 18 |
| Hawaii | Minor | 513 | 748 | 42 | 87 | — | 109 | 5 | 12 | 1 |
| | Serious | 145 | 221 | 185 | 109 | — | 82 | 4 | 23 | 1 |
| | Critical | 13 | 13 | 17 | 16 | — | 11 | — | 1 | — |
| | Extremely Critical | 4 | 12 | 31 | 13 | 2 | 5 | — | — | — |
| | Dead on Arrival of Ambulance d/ | 18 | 20 | 19 | 7 | 3 | 1 | — | — | — |
| | Blank | 42 | 58 | 22 | 10 | 2 | 9 | — | 2 | 2 |
| | TOTAL | 735 | 1,072 | 316 | 242 | 7 | 217 | 9 | 38 | 4 |
| Kauai | Minor | 158 | 127 | 10 | 26 | — | 16 | 2 | 4 | — |
| | Serious | 61 | 61 | 47 | 25 | 2 | 29 | — | 9 | — |
| | Critical | 6 | 9 | 20 | 16 | — | 7 | — | 2 | — |
| | Extremely Critical | 8 | 4 | 11 | 7 | — | 2 | — | — | — |
| | Dead on Arrival of Ambulance d/ | 2 | 2 | 11 | 4 | — | — | — | — | — |
| | Blank | 9 | 17 | 5 | 4 | — | 4 | — | 1 | — |
| | TOTAL | 244 | 220 | 104 | 82 | 2 | 58 | 2 | 16 | — |
| Maui | Minor | 340 | 428 | 28 | 68 | — | 59 | 2 | 16 | — |
| | Serious | 155 | 233 | 210 | 121 | — | 128 | 3 | 36 | 2 |
| | Critical | 23 | 32 | 52 | 32 | — | 32 | 2 | 4 | — |
| | Extremely Critical | 2 | 12 | 43 | 33 | 2 | 7 | — | — | — |
| | Dead on Arrival of Ambulance d/ | 10 | 11 | 18 | 12 | — | — | — | 1 | — |
| | Blank | 32 | 30 | 15 | 12 | — | 8 | — | 5 | 2 |
| | TOTAL | 562 | 746 | 366 | 278 | 2 | 234 | 7 | 62 | 4 |
| Lanai | Minor | 3 | 8 | — | — | — | — | — | — | — |
| | Serious | — | 4 | 2 | — | — | 1 | — | 2 | — |
| | Critical | — | — | — | — | — | — | — | — | — |
| | Extremely Critical | — | — | — | — | — | — | — | — | — |
| | Dead on Arrival of Ambulance d/ | — | 1 | — | — | — | — | — | — | — |
| | Blank | — | 3 | 2 | — | — | — | — | — | — |
| | TOTAL | 3 | 16 | 4 | — | — | 1 | — | 2 | — |
| Molokai | Minor | 21 | 38 | 5 | 9 | — | 8 | — | 4 | — |
| | Serious | 2 | 19 | 9 | 6 | — | 12 | — | 8 | — |
| | Critical | 1 | 2 | 1 | — | — | 1 | — | — | — |
| | Extremely Critical | — | — | 1 | — | 2 | 1 | — | — | — |
| | Dead on Arrival of Ambulance d/ | 4 | — | 4 | 3 | 2 | 2 | — | — | — |
| | Blank | — | — | 1 | — | — | — | — | — | — |
| | TOTAL | 28 | 59 | 21 | 18 | 4 | 24 | — | 12 | — |
| All Islands | Minor | 5,391 | 8,151 | 609 | 1,042 | — | 1,055 | 22 | 546 | 12 |
| | Serious | 826 | 1,425 | 1,541 | 954 | 2 | 839 | 9 | 169 | 7 |
| | Critical | 92 | 119 | 185 | 129 | — | 114 | 3 | 7 | 1 |
| | Extremely Critical | 45 | 80 | 327 | 217 | 36 | 48 | 1 | — | 1 |
| | Dead on Arrival of Ambulance d/ | 82 | 132 | 270 | 185 | 30 | 30 | — | 4 | — |
| | Blank | 157 | 206 | 66 | 57 | 5 | 39 | — | 26 | 5 |
| | TOTAL | 6,593 | 10,113 | 2,998 | 2,584 | 73 | 2,125 | 35 | 752 | 26 |

SOURCE: EMS Recurring Computerized Report #17.

a/ Preliminary 1980 data
b/ Prior to 11/01/80, categorized as only "Trauma"
c/ Category did not exist prior to 11/01/80
d/ Information as to cause of death as documented on ambulance report form -- not substantiated by autopsy

TABLE 3 (Continued)

EMERGENCY GROUND AMBULANCE PATIENT RECORDS BY ISLAND,
SEVERITY AND NATURE OF INCIDENT
STATE OF HAWAII, CALENDAR YEAR 1980 a/

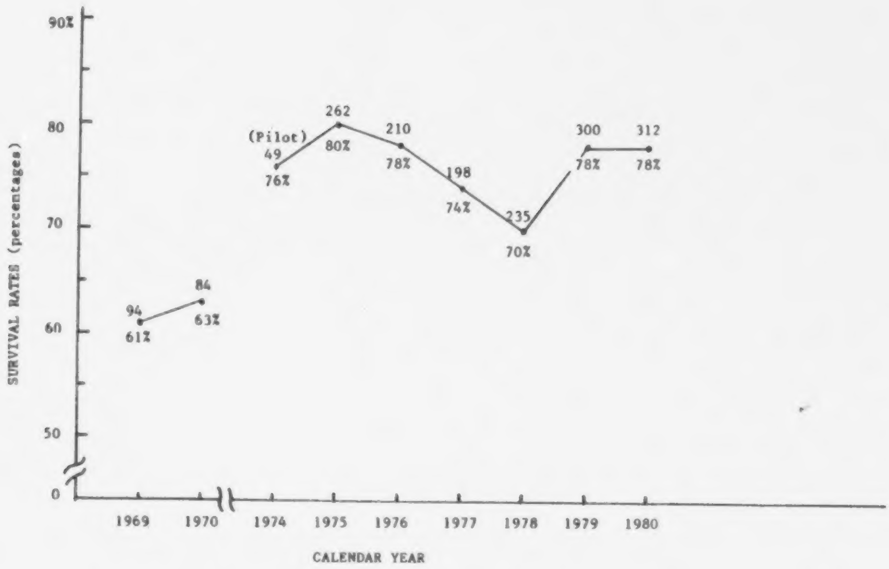
| Island | Severity | Medical | Burns | Near Drowning c/ | Poison c/ | Behavioral/ Over Dose/Alcohol | Number of Cases With More Than One Nature of Incident | Nature Left Blank | Total Patient Records |
|---|---|---|---|---|---|---|---|---|---|
| Oahu | Minor | 6,487 | 51 | 5 | 7 | 1,713 | 1,915 | 267 | 20,424 |
| | Serious | 2,173 | 27 | 2 | 2 | 272 | 1,114 | 35 | 5,093 |
| | Critical | 100 | 3 | — | — | 4 | 106 | — | 308 |
| | Extremely Critical | 97 | — | 1 | — | 3 | 192 | 2 | 374 |
| | Dead on Arrival of Ambulance d/ | 223 | 3 | — | — | 13 | 196 | 161 | 710 |
| | Blank | 93 | 5 | — | — | 50 | 57 | 4,467 | 4,807 |
| | TOTAL | 9,173 | 89 | 8 | 9 | 2,055 | 3,580 | 4,932 | 31,716 |
| Hawaii | Minor | 787 | 11 | — | — | 124 | 129 | 50 | 2,353 |
| | Serious | 435 | 8 | — | — | 37 | 152 | 24 | 1,111 |
| | Critical | 28 | — | — | — | — | 15 | 3 | 83 |
| | Extremely Critical | 23 | — | 1 | — | — | 20 | 1 | 66 |
| | Dead on Arrival of Ambulance d/ | 26 | 1 | 1 | — | 2 | 15 | 8 | 87 |
| | Blank | 85 | 1 | 2 | — | 17 | 16 | 184 | 420 |
| | TOTAL | 1,384 | 21 | 4 | — | 180 | 347 | 270 | 4,120 |
| Kauai | Minor | 147 | 2 | — | — | 55 | 45 | 25 | 521 |
| | Serious | 104 | 4 | 2 | — | 16 | 52 | 7 | 309 |
| | Critical | 19 | — | — | — | — | 18 | 1 | 55 |
| | Extremely Critical | 6 | 1 | — | — | 1 | 10 | 1 | 27 |
| | Dead on Arrival of Ambulance d/ | 5 | — | 1 | — | — | 4 | 3 | 23 |
| | Blank | 22 | — | — | — | 2 | 5 | 140 | 199 |
| | TOTAL | 303 | 7 | 3 | — | 74 | 134 | 177 | 1,134 |
| Maui | Minor | 459 | 3 | 1 | — | 122 | 136 | 36 | 1,416 |
| | Serious | 412 | 9 | — | — | 45 | 261 | 16 | 1,080 |
| | Critical | 57 | — | — | — | 4 | 62 | 4 | 169 |
| | Extremely Critical | 11 | 1 | — | — | — | 39 | 1 | 62 |
| | Dead on Arrival of Ambulance d/ | 5 | — | — | — | 1 | 14 | 5 | 43 |
| | Blank | 38 | 1 | — | — | 10 | 18 | 407 | 539 |
| | TOTAL | 982 | 14 | 1 | — | 182 | 530 | 469 | 3,309 |
| Lanai | Minor | 5 | — | — | — | — | — | — | 16 |
| | Serious | 12 | — | — | — | — | 1 | — | 20 |
| | Critical | 1 | — | — | — | — | — | 1 | 2 |
| | Extremely Critical | — | — | — | — | — | — | — | — |
| | Dead on Arrival of Ambulance d/ | 1 | — | — | — | — | — | — | 2 |
| | Blank | 5 | — | — | — | — | — | 2 | 12 |
| | TOTAL | 24 | — | — | — | — | 1 | 3 | 52 |
| Molokai | Minor | 53 | 1 | — | — | 9 | 20 | — | 127 |
| | Serious | 45 | 1 | — | — | 3 | 19 | 2 | 83 |
| | Critical | 1 | 1 | — | — | — | 1 | 1 | 7 |
| | Extremely Critical | 1 | — | — | — | — | 2 | — | 3 |
| | Dead on Arrival of Ambulance d/ | 3 | — | — | — | — | 5 | — | 8 |
| | Blank | 2 | — | — | — | — | — | 9 | 12 |
| | TOTAL | 105 | 3 | — | — | 12 | 47 | 12 | 240 |
| All Islands | Minor | 7,938 | 68 | 6 | 7 | 2,023 | 2,245 | 378 | 24,857 |
| | Serious | 3,181 | 49 | 4 | 2 | 373 | 1,599 | 84 | 7,696 |
| | Critical | 206 | 4 | — | — | 8 | 202 | 10 | 624 |
| | Extremely Critical | 138 | 2 | 2 | — | 4 | 263 | 5 | 532 |
| | Dead on Arrival of Ambulance d/ | 263 | 4 | 2 | — | 16 | 234 | 177 | 873 |
| | Blank | 245 | 7 | 2 | — | 79 | 96 | 5,209 | 5,989 |
| | TOTAL | 11,971 | 134 | 16 | | 2,503 | 4,639 | 5,863 | 40,571 |

SOURCE: EMS Recurring Computerized Report #17.

a/ Preliminary 1980 data
b/ Prior to 11/01/80, categorized as only "Trauma"
c/ Category did not exist prior to 11/01/80
d/ Information as to cause of death as documented on ambulance report form -- not substantiated by autopsy

FIGURE 1

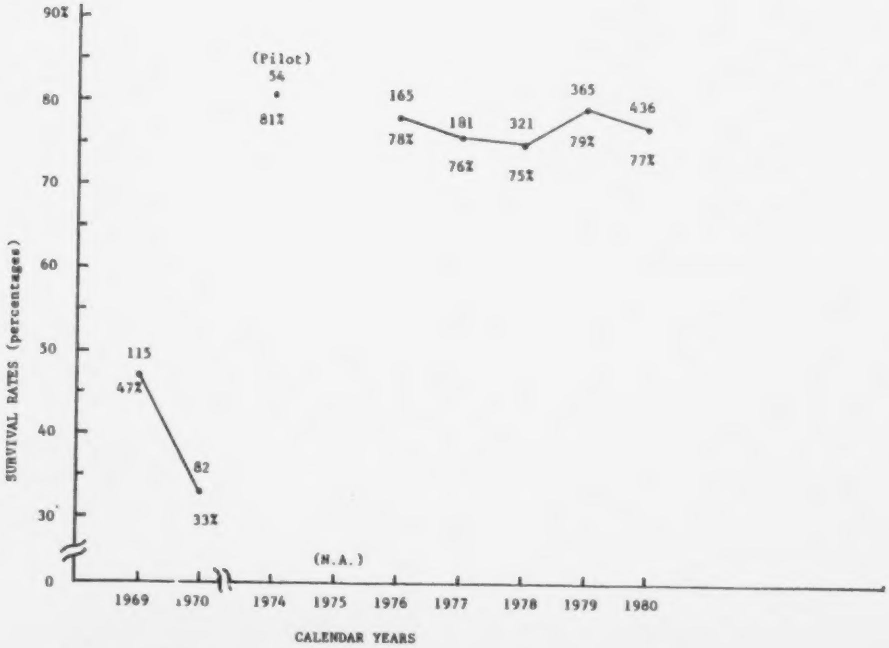
HIGH-RISK TRAUMA PATIENT SURVIVAL RATES
STATE OF HAWAII, ISLAND OF OAHU, 1969 - 1980



Note: Number of cases indicated above each "dot"; survival percentages indicated below each "dot".

FIGURE 2

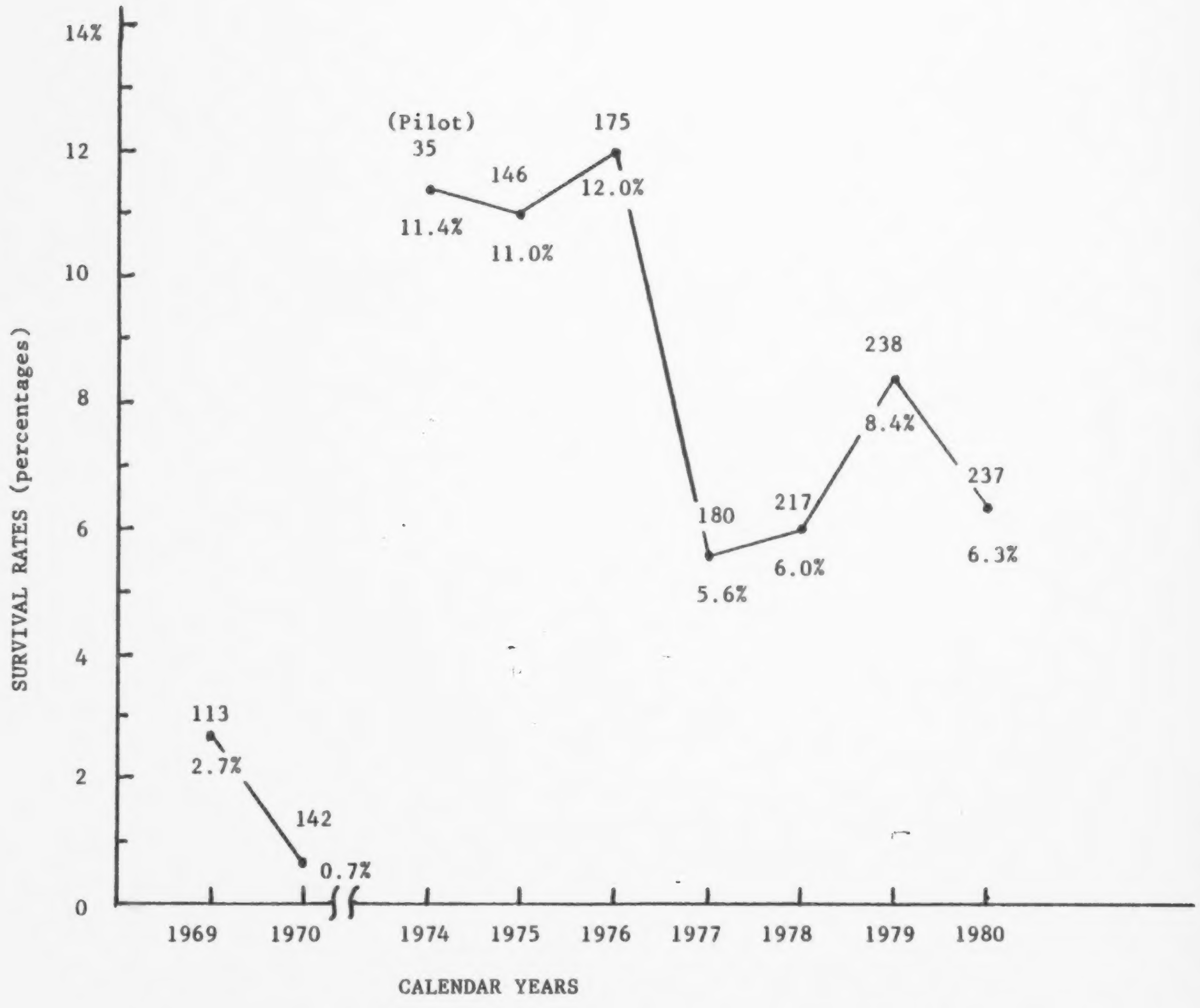
HIGH-RISK CARDIAC PATIENT SURVIVAL RATES
STATE OF HAWAII, ISLAND OF OAHU, 1969 - 1980



Note: Number of cases indicated above each "dot"; survival percentages indicated below each "dot".

FIGURE 3

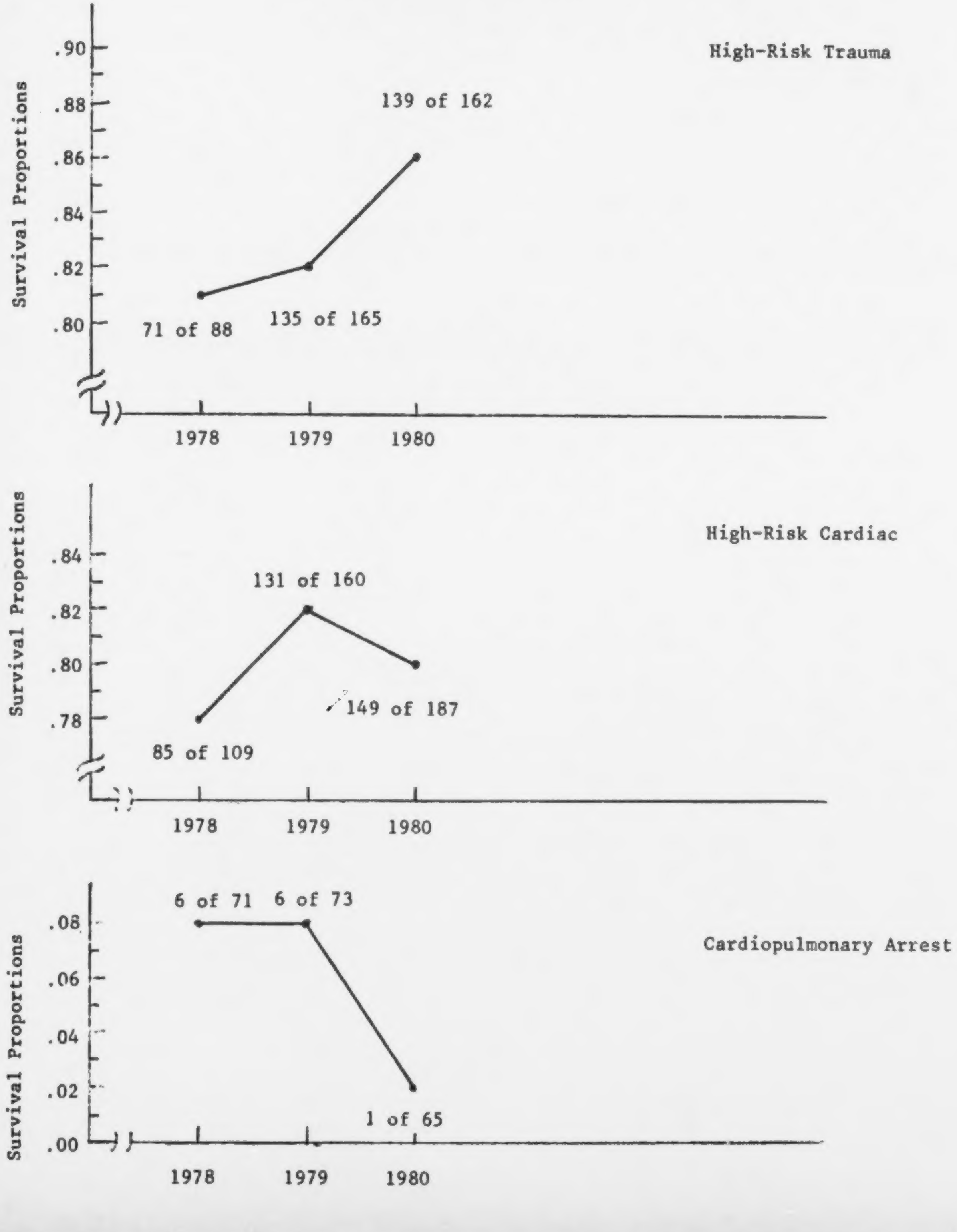
CODE 500 PATIENT SURVIVAL RATES
STATE OF HAWAII, ISLAND OF OAHU, 1969 - 1980



NOTE: Number of cases indicated above each "dot"; survival percentages indicated below each "dot".

FIGURE 4

HIGH-RISK SURVIVAL RATES
STATE OF HAWAII, NEIGHBOR ISLANDS, 1978 - 1980



The Hospital and Medical Facilities Branch of the Medical Health Services Division focuses on quality of care delivered in health facilities and on the number of facilities required to provide a satisfactory level of health care. Regulations for the various types of facilities are prepared and adopted following public hearings, and revisions of regulations are an ongoing policy. Regulations are enforced by inspections, surveys and consultations performed by specially trained surveyors composed of multi-disciplinary specialists. Licensing of facilities and certification for participation in the Federal Medicaid and Medicare Programs are a major function of the Branch. Facilities which are included in the licensing and certification process include in the order of intensity of care necessary: Acute Hospitals, Skilled Nursing Facilities, Intermediate Care Facilities, and "mixed" or "swing" bed facilities where intermediate care and skilled nursing beds are located in one facility and used as necessary depending on the condition of the patient. Acute Hospitals may have distinct parts allocated to skilled nursing and intermediate care beds. Facilities for Mentally Retarded, Care Homes and Special Treatment Facilities, primarily for the treatment of alcohol and drug abuse, are also licensed by this Branch. Tables showing the number of facilities and beds under each category, State of Hawaii, are given under the State Health Planning Section of the Annual Report. A table showing care homes by island is given in this section.

## 1981

### CARE HOME BY ISLANDS, TYPE AND BEDS

### STATE OF HAWAII

| Number of Facilities and Beds | TOTAL | | | ISLAND AND TYPE OF CARE HOME | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | HAWAII | | KAUAI | | MAUI | | MOLOKAI | | OAHU | |
| | GRAND TOTAL | Residential | Family | Residential | Family | Residential | Family | Residential | Family | Residential | Family | Residential | Family |
| Number of Facilities | 292 | 14 | 278 | 1 | 17 | 3 | 15 | 0 | 10 | 1* | 2 | 9 | 234 |
| Number of Beds | 1555 | 500 | 1055 | 13 | 56 | 61 | 61 | 0 | 47 | 14 | 8 | 412 | 883 |

*Kalaupapa

Residential Care Home (formerly institutional) = Care Home with five or more beds.
Family Care Home (formerly residential) = Care Home with four or less beds.

Care Homes are homes or residential facilities in which people may obtain 24-hour care if they need personal services, supervision or assistance essential for sustaining the activities of daily living. These people are incapable of living independently.

Family Care Homes are those in which the residents share a home with a family. During this past year, on Oahu, 21 new Care Homes were established with a total of 83 beds. Six Care Homes were established on the Neighbor Islands: Hawaii, 1 home (3 beds); Maui, 5 homes (19 beds).

In the State of Hawaii, 27 new Care Homes were established (105 beds). Ten (10) homes closed in the State of Hawaii in 1981.

## LABORATORY SERVICES

The Laboratories Branch provides services to other departmental programs, private physicians, institutions and other governmental programs to enhance their effectiveness for public health and safety, to control the quality of the environment and to enforce the various state laws and regulations.

The services provided include air chemistry; clinical microbiology (bacteriology, mycobacteriology, mycology, parasitology, and serology); food and drug analysis; milk and milk products analyses; pesticide analysis; sanitary microbiology and chemistry; toxicology; and virology. Also, the branch provides training opportunities to other laboratory personnel in the state.

During fiscal year 1981, the branch performed a total of 500,384 examinations and provided bench training to 28 individuals. Some of the significant activities during this period were the analysis for the nematocide dibromochloropropane (DBCP) in drinking water; the investigation for salmonella organisms in hog viscera and other pork products; the investigation of herpes virus in pregnant women; and the completion of the air monitoring network on Oahu and the neighbor islands.

Also, during the period, the branch was recertified by FDA to perform microbiological and chemical analyses on shellfish and milk; recertified by EPA to perform microbiological and chemical analyses on potable and non-potable waters; recertified by EPA to perform air pollution monitoring analysis; continued to serve as the *Salmonella typhi* Phage Typing Center and as the Influenza Virus Surveillance and Reference Laboratory for the Pacific Basin for the Center for Disease Control and the World Health Organization, respectively; and serve as a reference laboratory in medical bacteriology for the Center for Disease Control.

## TABLE 1

### NUMBER OF SAMPLES SUBMITTED TO VARIOUS UNITS OF THE LABORATORIES BRANCH AND NUMBER OF BACTERIOLOGICAL, PARASITOLOGICAL, SEROLOGICAL AND CHEMICAL EXAMINATIONS PERFORMED UPON THEM BY TYPE OF SPECIMEN AND ISLAND

### STATE OF HAWAII, FY 1981

| Diseases or Type of Samples | All Laboratories | | Oahu | | Hawaii | | Maui | | Kauai | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Submitted | RVU | Submitted | RVU | Submitted | RVU | Submitted | RVU | Submitted | RVU |
| Total ......... | 271,004 | 500,384 | 236,773 | 446,055 | 11,372 | 20,987 | 15,281 | 24,232 | 7,578 | 9,110 |
| Microbiology | | | | | | | | | | |
| Enteric ................. | 7,642 | 24,387 | 4,609 | 18,415 | 538 | 1,104 | 2,468 | 4,772 | 27 | 96 |
| Gonorrhea ................ | 119,007 | 113,163 | 108,735 | 104,920 | 2,939 | 2,447 | 4,456 | 3,442 | 2,877 | 2,354 |
| Staphylococcus Phage Typing ................. | 1,777 | 9,596 | 1,777 | 9,596 | - | - | - | - | - | - |
| Streptococcus ............ | 11,650 | 19,408 | 8,548 | 16,274 | 960 | 570 | - | - | 2,142 | 2,564 |
| Tuberculosis ............ | 8,246 | 49,886 | 7,292 | 46,349 | 954 | 3,537 | - | - | - | - |
| Miscellaneous Bacteriology .......... | 5,440 | 23,193 | 5,318 | 22,656 | 74 | 336 | 33 | 129 | 15 | 72 |
| Mycology ................ | 728 | 5,766 | 517 | 4,909 | 184 | 731 | 27 | 126 | - | - |
| Parasitology ............ | 8,270 | 28,264 | 5,109 | 17,743 | 872 | 2,619 | 2,167 | 7,521 | 122 | 381 |
| Viral Isolation .......... | 3,001 | 11,661 | 3,001 | 11,661 | - | - | - | - | - | - |
| Serology: Syphilis ..... | 29,518 | 30,551 | 23,255 | 25,207 | 1,189 | 1,062 | 4,046 | 3,372 | 1,028 | 910 |
| Non-Syphilis .......... | 4,626 | 9,838 | 4,454 | 9,384 | 144 | 349 | 28 | 105 | - | - |
| Viral & Rickettsial ... | 15,166 | 27,348 | 15,166 | 27,348 | - | - | - | - | - | - |
| Sanitary Microbiology | | | | | | | | | | |
| Drinking Water .......... | 5,565 | 11,965 | 907 | 2,210 | 2,258 | 4,718 | 1,561 | 3,398 | 839 | 1,639 |
| Pollution Water ......... | 777 | 3,655 | 457 | 2,162 | 187 | 948 | 95 | 378 | 38 | 167 |
| Food Products ........... | 3,343 | 9,166 | 2,438 | 6,649 | 413 | 1,285 | 256 | 635 | 236 | 597 |
| Food Poisoning .......... | 152 | 1,665 | 111 | 1,442 | 41 | 223 | - | - | - | - |
| Salmonella Study ........ | 1,216 | 4,579 | 1,216 | 4,579 | - | - | - | - | - | - |
| Sanitary Chemistry | | | | | | | | | | |
| Drinking Water .......... | 944 | 10,373 | 775 | 10,266 | 160 | 99 | - | - | 9 | 8 |
| Pollution Water ......... | 1,632 | 16,384 | 1,632 | 16,384 | - | - | - | - | - | - |
| Food Products ........... | 2,738 | 13,901 | 2,032 | 12,370 | 317 | 855 | 144 | 354 | 245 | 322 |
| Pesticides .............. | 211 | 12,175 | 211 | 12,175 | - | - | - | - | - | - |
| Toxicology .............. | 238 | 2,894 | 238 | 2,894 | - | - | - | - | - | - |
| Clinical Chemistry (INH) .. | 6,238 | 8,428 | 6,096 | 8,324 | 142 | 104 | - | - | - | - |
| Air Pollution Chemistry ... | 32,879 | 52,138 | 32,879 | 52,138 | - | - | - | - | - | - |

TABLE 2 (continued)

INCIDENCE OF SALMONELLA BY TYPE AND AGE
CENTRAL LABORATORY ON OAHU

STATE OF HAWAII - JULY 1980 TO JUNE 1981

| GROUP | SEROTYPE | AGE (In Years) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | < 0.5 | 0.5-1 | 1-3 | 3-10 | 10-20 | > 20 | UNK | TOTAL |
| D | berta | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| | enteritidis | 1 | 1 | 7 | 4 | 1 | 24 | 29 | 67 |
| | panama | 1 | 1 | 7 | 1 | 1 | 6 | 2 | 19 |
| | typhi, phage type A | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| | typhi, phage type E-9 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| | typhi, phage W-form | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| | typhi, phage M-form | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| | victoria | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 2 |
| $E_1$ | anatum | 2 | 0 | 0 | 0 | 1 | 5 | 1 | 9 |
| | give | 1 | 3 | 0 | 0 | 0 | 2 | 0 | 6 |
| | london | 1 | 0 | 0 | 0 | 0 | 4 | 0 | 5 |
| | muenster | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 2 |
| | weltevreden | 23 | 17 | 3 | 6 | 3 | 29 | 7 | 88 |
| | westhampton | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| $E_2$ | binza | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| | drypool | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 4 |
| | newington | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 4 |
| $E_3$ | arkansas | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| $E_4$ | senftenberg | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 4 |
| F | aberdeen | 3 | 0 | 1 | 0 | 1 | 0 | 3 | 8 |
| G | cubana | 0 | 2 | 1 | 0 | 1 | 5 | 0 | 9 |
| | grumpensis | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| | poona | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| | worthington | 2 | 0 | 0 | 1 | 0 | 3 | 1 | 7 |
| K | cerro | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| O | alachua | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| | TOTAL | 68 | 64 | 66 | 32 | 50 | 161 | 96 | 537 |

TABLE 2

INCIDENCE OF SALMONELLA BY TYPE AND AGE
CENTRAL LABORATORY ON OAHU

STATE OF HAWAII - JULY 1980 TO JUNE 1981

| GROUP | SEROTYPE | AGE (In Years) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | < 0.5 | 0.5-1 | 1-3 | 3-10 | 10-20 | > 20 | UNK | TOTAL |
| A | paratyphi A | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| B | agona | 7 | 4 | 7 | 4 | 1 | 13 | 10 | 46 |
| | bredeney | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 3 |
| | derby | 1 | 3 | 2 | 1 | 0 | 2 | 1 | 10 |
| | heidelberg | 4 | 3 | 0 | 0 | 0 | 0 | 3 | 10 |
| | java | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| | saint paul | 0 | 2 | 0 | 0 | 0 | 2 | 1 | 5 |
| | schwarzengrund | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 3 |
| | stanley | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| | typhimurium | 2 | 6 | 20 | 4 | 9 | 12 | 11 | 64 |
| | typhimurium var. copenhagen | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| $C_1$ | braenderup | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| | infantis | 0 | 2 | 0 | 1 | 1 | 5 | 2 | 11 |
| | lille | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | livingstone | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| | mbandaka | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| | montevideo | 2 | 1 | 0 | 0 | 0 | 1 | 1 | 5 |
| | ohio | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | oranienburg | 1 | 0 | 0 | 1 | 22 | 3 | 6 | 33 |
| | oslo | 4 | 4 | 3 | 1 | 0 | 5 | 0 | 17 |
| | singapore | 0 | 0 | 0 | 1 | 0 | 6 | 2 | 9 |
| | tennessee | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 7 |
| | thompson | 0 | 1 | 8 | 1 | 2 | 0 | 1 | 13 |
| | virchow | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 6,7 non motile | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 6,7,k non motile | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| $C_2$ | albany | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 3 |
| | litchfield | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| | newport | 6 | 5 | 4 | 3 | 1 | 9 | 0 | 28 |
| | hadar | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| | manhattan | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | munchen | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 3 |

TABLE 3

INCIDENCE OF SALMONELLA BY TYPE FROM NON HUMAN SOURCES
CENTRAL LABORATORY ON OAHU

STATE OF HAWAII - JULY 1980 TO JUNE 1981

| Group | Serotype | Avian | Bovine | Lizard | Rodent | Porcine | Feed | Enviro. | Miscellaneous | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| B | agona | - | 1 | - | - | 47 | - | 9 | - | 57 |
| | bredeney | - | - | - | - | - | 2 | - | - | 2 |
| | derby | - | - | - | - | 35 | - | 2 | 2 (Equine) | 39 |
| | heidelberg | - | - | - | - | 9 | - | - | - | 9 |
| | typhimurium | 3 | - | - | - | 15 | - | - | 6 (Camel) | 24 |
| $C_1$ | bareilly | - | - | - | - | - | 1 | - | - | 1 |
| | infantis | - | - | - | - | 6 | - | - | - | 6 |
| | lille | - | - | - | - | - | 2 | - | - | 2 |
| | oranienburg | - | - | - | - | - | 2 | - | - | 2 |
| | oslo | - | - | - | 5 | - | - | - | 2 (Turtle) | 7 |
| | virchow | - | - | - | - | - | - | - | 2 (Canine) | 2 |
| | thompson | 1 | - | - | - | - | - | - | - | 1 |
| $C_2$ | chailey | - | 6 | - | - | - | - | - | - | 6 |
| | manhattan | - | - | - | - | 19 | - | 5 | - | 24 |
| | muenster | - | - | 1 | - | - | - | - | - | 1 |
| | newport | - | - | 8 | - | - | - | - | - | 8 |
| D | albany | 1 | - | - | - | - | - | - | - | 1 |
| | kentucky | - | - | - | - | 1 | - | - | - | 1 |
| | enteritidis | 4 | - | - | - | 2 | - | - | - | 6 |
| | panama | - | - | - | - | 24 | - | 21 | - | 45 |
| $E_1$ | anatum | 1 | 7 | 5 | - | 7- | - | - | - | 20 |
| | give | - | - | 4 | - | - | - | - | - | 4 |
| | london | - | - | - | - | 1 | 5 | 4 | - | 10 |
| | meleagridis | - | 1 | - | - | - | - | - | - | 1 |
| | weltevreden | 2 | - | 14 | 3 | 10 | - | 2 | 1 (camel) | 32 |
| $E_2$ | lanka | - | - | - | - | 4 | - | - | - | 4 |
| | newington | - | - | 1 | - | 1 | - | 3 | - | 5 |
| $E_3$ | thomasville | - | - | - | - | - | 1 | - | - | 1 |
| F | aberdeen | - | - | - | 2 | - | - | - | - | 2 |
| G | cubana | - | - | - | - | 2 | - | - | - | 2 |
| I | hvittingfoss | - | - | - | - | - | - | - | 1 (Turtle) | 1 |
| K | cerro | - | - | 2 | - | 4 | - | - | - | 6 |
| L | minnesota | - | - | - | - | 1 | - | - | 2 (Turtle) | 3 |
| | TOTAL | 12 | 13 | 35 | 10 | 188 | 13 | 46 | 16 | 335 |

TABLE 4

INCIDENCE OF PARASITES FROM HUMANS
CENTRAL LABORATORY ON OAHU

STATE OF HAWAII - JULY 1980 TO JUNE 1981

| | | |
|---|---|---|
| Total Number of Specimens Examined . . . . . . . . .2,109 | Total Number of Specimens Parasites Found . . . . . . 715 | Total Number of Parasites Found . . . . . 1,208 |

PARASITES FOUND

| ORGANISM | Number Found | ORGANISM | Number Found |
|---|---|---|---|
| 1. Protozoan | | 3. Trematodes | |
| Balantidium coli | 1 | Clonorchis sinesis | 79 |
| Entamoeba histolytica | 50 | Fasciola sp. | 1 |
| Giardia lamblia | 144 | | |
| Nonpathogenic | 224 | 4. Cestodes | |
| | | Diphyllobothrium latum | 2 |
| 2. Nematodes | | Dipylidium caninum | 2 |
| Ascaris lumbricoides | 159 | Hymenolepsis nana | 5 |
| Enterobius vermicularis | 4 | Taenia sp. | 14 |
| Hookworm | 162 | Taenia saginata | 1 |
| Strongyloides stercoralis | 26 | | |
| Trichuris trichiura | 332 | 5. Other | |
| | | Ornithonyssus sylviarum | 1 |
| | | Immature segment (Unable to ID) | 1 |

### TABLE 5

### INCIDENCE OF GRAM NEGATIVE DIPLOCOCCUS FROM SUSPECTED GONORRHEA CASES
### CENTRAL LABORATORY ON OAHU

### STATE OF HAWAII - JULY 1980 TO JUNE 1981

| | TOTAL | POSITIVE | NEGATIVE | UNSATISFACTORY |
|---|---|---|---|---|
| Culture . . . . | 107,264 | 3,855 | 99,268 | 2,612 |
| TOTAL | 107,264 | 3,855 | 99,268 | 2,612 |

### TABLE 6

### INCIDENCE OF MYCOBACTERIA FROM HUMAN AND NONHUMAN SOURCES
### CENTRAL LABORATORY ON OAHU

### STATE OF HAWAII - JULY 1980 TO JULY 1981

| Mycobacterium | SPUTUM | BRONCHIAL | GASTRIC | URINE | TISSUE | MISCELLANEOUS | TOTAL |
|---|---|---|---|---|---|---|---|
| tuberculosis. . . . . . . . . . | 111 | 4 | 2 | 9 | 9a/ | 18b/ | 153 |
| Group I (Photochromogen) | | | | | | | |
| kansasii. . . . . . . . . . . . | 5 | 0 | 0 | 0 | 0 | 0 | 5 |
| marinum . . . . . . . . . . . . | 0 | 0 | 0 | 0 | 0 | 4 (2-finger,1-hand, 1 Thigh Abs) | 4 |
| Group II (Scotochromogen) | | | | | | | |
| flavescens. . . . . . . . . . . | 29 | 0 | 0 | 0 | 0 | 0 | 29 |
| gordonae. . . . . . . . . . . . | 165 | 1 | 3 | 0 | 0 | 00 | 169 |
| schrofulaceum . . . . . . . . . | 34 | 1 | 2 | 2 | 0 | 10 (10 aerosols) | 49 |
| szulgai . . . . . . . . . . . . | 1 | 0 | 0 | 1 | 0 | 0 | 2 |
| Group III (Non Photochromogen) | | | | | | | |
| avium-intracellulare complex. . | 91 | 3 | 2 | 0 | 1 (Lung) | 8c/ | 105 |
| MAIS. . . . . . . . . . . . . . | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| gastri. . . . . . . . . . . . . | 4 | 0 | 0 | 0 | 0 | 00 | 4 |
| terrae complex. . . . . . . . . | 39 | 0 | 0 | 0 | 0 | 0 | 39 |
| xenopi. . . . . . . . . . . . . | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| triviale. . . . . . . . . . . . | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Group IV (Rapid Grower) | | | | | | | |
| fortuitum . . . . . . . . . . . | 77 | 0 | 0 | 1 | 0 | 4(1-chest swab, 1-chest scar,1-lingula-wash, 1-haemoptysis) | 82 |
| chelonei. . . . . . . . . . . . | 24 | 1 | 0 | 0 | 1 (Finger) | 0 | 26 |
| fortuitum complex . . . . . . . | 2 | 0 | 0 | 1 | 0 | 0 | 3 |
| vaccae. . . . . . . . . . . . . | 17 | 0 | 0 | 0 | 0 | 0 | 17 |
| smegmatis . . . . . . . . . . . | 3 | 0 | 0 | 0 | 0 | 0 | 3 |
| TOTAL | 605 | 10 | 9 | 14 | 11 | 44 | 693 |

a/4Lung, 2 lymph nodes, 2 cervical lymph nodes

b/- 1 fistula tract, 1 Paracentesis fluid, 1 left foot, 1 sclera node, 1 lung aspirate, 1 spinal wound, 1 ankle fluid, 1 knee fluid, 2 left thigh abscess, 4 pleural fluid, 2 CSF, 1 thoracentesis fluid, 1 post chest abscess

c/ -5 aerusol, 1 thigh, 1 cheek mass, 1 wound

## TABLE 7

## VIRAL ISOLATIONS

## CENTRAL LABORATORY ON OAHU

## STATE OF HAWAII - FISCAL YEAR 1981

| | NUMBER ISOLATED |
|---|---|
| 1. Throat Swabs: | |
| Adenovirus Type (?) | 8 |
| Coxsackievirus Type B-4 | 1 |
| Coxsackievirus Type B-5 | 2 |
| Coxsackievirus Type B-6 | 8 |
| ECHOvirus Type 7 | 1 |
| ECHOvirus Type 11 | 1 |
| ECHOvirus Type 17 | 1 |
| Herpesvirus hominis | 1 |
| Influenza A/Bangkok-like (H3N2) | 40 |
| Influenza A/Texas-like (H3N2) | 4 |
| 2. Rectal/Fecal Specimens: | |
| Adenovirus Type (?) | 1 |
| Coxsackievirus Type B-2 | 1 |
| Coxsackievirus Type B-5 | 1 |
| Coxsackievirus Type B-6 | 4 |
| ECHOvirus Type 7 | 2 |
| ECHOvirus Type 11 | 1 |
| Herpesvirus hominis | 3 |
| Poliovirus Type III | 1 |
| 3. Cerebrospinal Fluids: | |
| Coxsackievirus Type A-9 | 5 |
| Coxsackievirus Type B-6 | 2 |
| 4. Miscellaneous Specimens: | |
| Adenovirus Type (?) | 1 (From a nasopharyngeal swab) |
| ECHOvirus Type 9 | 1 (From a pharyngeal swab) |
| Herpesvirus hominis | 269 (202 from genital area, 50 from skin, 1 from a gum, 1 from a palate, 1 from a nasopharyngeal swab, 14 from unspecified swabs) |

## TABLE 8

## VIRAL AND RICKETTSIAL POSITIVE SEROLOGIES

## CENTRAL LABORATORY ON OAHU

## STATE OF HAWAII - FISCAL YEAR 1981

| | Number of Positives* |
|---|---|
| Complement Fixation Antigens: | |
| Cytomegalovirus (AD-169) | 6 |
| Herpesvirus hominis Type 1 | 1 |
| Influenza A | 2 |
| Mumps Viral | 1 |
| Mycoplasma pneumoniae | 3 |
| Hemagglutination - Inhibition Antigens: | |
| Influenza A/Bangkok | 18 |
| Influenza B/Singapore | 1 |
| Rubella | 4 |

*Paired sera showing four-fold or greater rise in antibody titer.

## SUMMARY

The Public Health Nursing Branch district public health nurses provide generalized, comprehensive and coordinated primary health care, disease prevention, health promotion and health maintenance services to individuals, families and groups in places of residence, private and parochial school, care home, neighborhood and preschool center, clinic, nursing office, work site and/or by phone contact. The nursing staff participates actively as members in multidisciplinary medical nursing health care teams and programs. They work in a collaborative relationship with other professionals and allied health personnel in trying to meet the consumer's demand for more adequate, coordinated and comprehensive response to individual health care needs.

Table 1 shows the number of cases admitted to service and total visits made statewide. Over the past year we have seen a 13.5% increase in caseload - from 33,215 to 37,685 cases. Visits have shown a slight 4.7% increase - from 123,735 to 129,629 visits. Case increases have been noted in all service categories except in other communicable disease. Visit increases have been experienced in all categories except in other communicable disease, mentally retarded, other developmental disabilities and emotional problems categories. Substantial visit increases have been recorded in the infant, preschool, school and chronic disease areas.

Table 2 shows the number of clinics conducted and total number of patients served statewide. Though there has been a 0.6% decrease in the number of clinic sessions over the past year from 4,679 to 4,650 sessions, the clinic attendance has increased 2.3% from 113,184 to 115,934 visits.

Table 3 shows the public health nursing services provided to private and parochial schools and home visits made to all school age children. The decrease in school health activities over the past year can be attributed to more complete follow-up services provided by school health branch personnel to children in public schools.

Table 4 displays clinic/group activities performed in day care centers and schools. There has been an overall increase both in sessions and attendance.

Table 1

### CASES ADMITTED TO PUBLIC HEALTH NURSING SERVICE AND VISITS MADE BY COUNTY
### STATE OF HAWAII
### FISCAL YEAR 1981

| TYPE OF HOME NURSING SERVICE | STATE | | Honolulu | | Hawaii | | Kauai | | Maui | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Cases a/ | Visits b/ | Cases | Visits | Cases | Visits | Cases | Visits | Cases | Visits |
| TOTAL | 37,685 | 129,629 | 24,134 | 86,183 | 5,230 | 15,380 | 2,677 | 6,764 | 5,644 | 21,302 |
| Maternity | 1,165 | 2,807 | 805 | 2,212 | 172 | 234 | 94 | 133 | 94 | 228 |
| Infant & Preschool Child Health | 14,503 | 48,356 | 9,245 | 35,946 | 2,735 | 5,557 | 777 | 1,604 | 1,746 | 5,249 |
| School Age Child c/ | 2,162 | 5,620 | 1,540 | 4,113 | 230 | 453 | 80 | 163 | 312 | 891 |
| Adult Health | 4,164 | 8,631 | 3,344 | 6,564 | 110 | 330 | 290 | 630 | 420 | 1,107 |
| Tuberculosis d/ | 9,511 | 24,432 | 5,422 | 10,666 | 1,211 | 4,575 | 1,102 | 2,600 | 1,776 | 6,591 |
| Other Communicable Disease d/ | 345 | 746 | 95 | 257 | 75 | 169 | 9 | 29 | 166 | 291 |
| Mentally Retarded | 168 | 1,221 | 147 | 1,036 | 7 | 44 | 2 | 2 | 12 | 139 |
| Other Developmental Disabilities | 1,103 | 9,079 | 740 | 6,853 | 151 | 1,111 | 30 | 168 | 182 | 947 |
| Other Crippled Children | 1,411 | 11,328 | 662 | 6,778 | 399 | 2,263 | 102 | 618 | 248 | 1,669 |
| Chronic Diseases | 2,432 | 11,242 | 1,540 | 6,508 | 107 | 362 | 166 | 764 | 619 | 3,608 |
| Emotional Problems | 469 | 1,630 | 408 | 1,401 | 17 | 43 | 6 | 11 | 38 | 175 |
| All Others | 181 | 747 | 131 | 594 | 11 | 19 | 17 | 30 | 22 | 104 |
| Not Home/Not Found | 71 | 3,790 | 55 | 3,255 | 5 | 220 | 2 | 12 | 9 | 303 |

a/ Cases: Individuals admitted to nursing service for a particular condition.
b/ Visits: Personal contacts with health content which take place in a home or the nurse's office.
c/ Health Guidance Only. Excludes visits to school children in other diagnostic categories.
d/ Includes diagnosed cases and contacts.
... Not applicable.

*All Statistics based on Fiscal Year of 1980-81

## Table 2
## CLINICS CONDUCTED BY PUBLIC HEALTH NURSING SERVICE BY TYPE OF CLINIC, NUMBER OF SESSIONS AND ATTENDANCE BY COUNTY
## STATE OF HAWAII
## FISCAL YEAR 1981

| Type of Clinic | STATE | | Honolulu | | Hawaii | | Maui | | Kauai | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Session | Attendance | Session | Attendance | Session | Attendance | Session | Attendance | Session | Attendance |
| TOTAL | 4,650 | 115,934 | 2,348 | 71,520 | 1,145 | 15,014 | 755 | 19,883 | 402 | 9,517 |
| Well Child | 2,228 | 24,414 | 1,057 | 14,465 | 758 | 5,999 | 310 | 3,069 | 103 | 881 |
| Adult Health | 433 | 8,863 | 381 | 8,118 | 26 | 344 | 26 | 401 | - | - |
| Cardiac a/ | 32 | 374 | - | - | 14 | 214 | 10 | 96 | 8 | 64 |
| Child Development-LD | 1 | 5 | 1 | 5 | - | - | - | - | - | - |
| Neurology a/ | 9 | 58 | 2 | 15 | 3 | 24 | 4 | 19 | - | - |
| Orthopedic b/ | 26 | 330 | - | - | 13 | 189 | 10 | 112 | 3 | 29 |
| Otologic-Speech & Hearing | - | - | - | - | - | - | - | - | - | - |
| Other Crippled Children including Pediatric | 8 | 131 | 1 | 78 | 4 | 34 | 3 | 19 | - | - |
| Tuberculosis c/ | 1,793 | 80,311 | 862 | 48,359 | 310 | 7,997 | 387 | 16,072 | 234 | 7,883 |
| Venereal Disease | - | - | - | - | - | - | - | - | - | - |
| Other Communicable Disease | 1 | 6 | - | - | 1 | 6 | - | - | - | - |
| Immunization d/ | 22 | 167 | 22 | 167 | - | - | - | - | - | - |
| Leprosy | 6 | 130 | - | - | 2 | 51 | 4 | 79 | - | - |
| Others | 91 | 1,145 | 22 | 313 | 14 | 156 | 1 | 16 | 54 | 660 |

a/ See Crippled Children Branch data
b/ New Cases 0-14 years. seen at Shriner's Hospital Screening Clinic
c/ This does not include Honolulu Chest Clinic
d/ Please refer to Communicable Disease Division, Epidemiology Branch, for statistics on number and type of immunizations administered in the child health clinics. All data is forwarded to the Epidemiology Branch for computerization.
*All Statistics are based on Fiscal Year of 1980-81

## TABLE 3

### PUBLIC HEALTH NURSING SERVICE TO SCHOOLS BY COUNTY a/
### STATE OF HAWAII
### FISCAL YEAR 1981

| Type of School Health Program | STATE | Honolulu | Hawaii | Maui | Kauai |
|---|---|---|---|---|---|
| TOTALS | 15,718 | 9,159 | 2,823 | 2,989 | 747 |
| Visits to Schools c/ | 1,252 | 1,113 | 48 | 11 | 80 |
| Home Visits Made tc Schoolage Children | 14,466 | 8,046 | 2,775 | 2,978 | 667 |

a/ Excludes School Health Pilot Project
b/ Unduplicated Count
c/ All diagnostic categories

* All Statistics based on Fiscal Year 1981

## TABLE 4

### PUBLIC HEALTH NURSING SERVICE TO SCHOOLS BY TYPE OF CLINIC BY COUNTY
### STATE OF HAWAII

| Type of Clinic | STATE | | Honolulu | | Hawaii | | Maui | | Kauai | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Session | Attendance | Session | Attendance | Session | Attendance | Session | Attendance | Session | Attendance |
| TOTALS | 83 | 2,799 | 65 | 2,427 | 5 | 136 | 13 | 236 | - | - |
| Vision Rescreening | 30 | 787 | 18 | 567 | - | - | 12 | 220 | - | - |
| Tuberculosis Testing | 12 | 207 | 11 | 190 | 1 | 17 | - | - | - | - |
| Uku-Pediculosis | 26 | 1,670 | 23 | 1,552 | 2 | 102 | 1 | 16 | - | - |
| Others | 15 | 135 | 13 | 118 | 2 | 17 | - | - | - | - |

*All Statistics based on Fiscal Year 1981

## SUMMARY

Efforts of the Nutrition Branch are directed towards the promotion of optimal health of individuals and families in Hawaii by providing nutrition services to reduce the risk of diseases associated with diet. The Branch has strenghtened the coordination of nutrition service with public and private agencies and established standards and guidelines for nutritional care to promote optimal nutritional status. There is evidence that dietary habits and certain factors found in food may be linked with health problems such as heart disease, cancer and obesity.

Nutrition consultations and direct services to other programs within the department, to other governmental agencies, community groups, to professionals and the general public are provided. Preventive aspects of nutrition are emphasized by providing sound, up-to-date nutrition information through pamphlets, newsletters, and news articles. Nutrition information is provided to the public through talks to community and student groups, workshops, exhibits at health fairs, T.V. and radio programs, and telephone calls.

The Public Health Nutritionists provide consultation and licensure services to hospitals, skilled nursing facilities, care homes and day care centers to assist them in meeting dietary standards according to State and Federal regulations.

The Special Supplemental Food Program for Women, Infants, and Children (WIC Program) funded by the United States Department of Agriculture is administered by the Nutrition Branch. This programs provides nutritious food to pregnant women, infants and children to age 5, who are at nutritional risk through a system of food vouchers.

Nutrition assessment and diet counseling is provided to those referred for anemia, obesity, underweight, cardiac or other nutritional problems through the Department of Health clinics.

## TABLE 1
## NUTRITION BRANCH SERVICES
## STATE OF HAWAII: 1981

| Type of Nutrition Service | Number of Sessions, Consultations, Home Visits, Inspections, or Instructions | Number Reached or Participants |
|---|---|---|
| Nutrition Education | | |
| Talks to community groups, students | 108 | 4,401 |
| Senior citizens group | 8 | 543 |
| Workshops | 55 | 1,692 |
| Radio and TV | 8 | --- |
| Health Fairs | 13 | --- |
| Nutrition Branch leaflets and booklets | | 146,840 |
| Newsletters | | 10,009 |
| Consultations and Inspections | | |
| Care Homes | | |
| Consultations and visits | 188 | --- |
| Inspections | 290 | |
| Hospital & Intermediate Care Facilities | | |
| Medicare certifications | 22 | --- |
| Day Care Centers | | |
| Consultations and visits | 23 | --- |
| Inspections | 14 | --- |
| Other Agencies and Individuals | | |
| Consultations | 1,796 | --- |
| Diet Instructions | | |
| Total | 118 | |
| Diabetes | 31 | --- |
| Weight reduction | 39 | --- |
| Others | 48 | --- |
| Nutrition Assessment & Diet Counseling | | |
| Special Supplemental Food Program for Women, Infants and Children (WIC) | --- | 6,062 |

# MENTAL HEALTH DIVISION

# MENTAL HEALTH DIVISION

The Mental Health Division provides both inpatient and outpatient services for a series of wide ranging problems affecting disparate populations. The utilization patterns of services provide significant leads to understanding the nature, severity, and determinants of mental illness. Figure 1 displays the trends in various categories of patients: actives, admissions, terminations, and duplicated counts.

The format of the tables in the following summary for calendar year 1981 is identical with the format for calendar years 1974-1980. The purpose of this annual replication of format is to allow the reader to examine comparatively, if desired, the trends in activities of the Division on a year-to-year basis. Therefore, the reader may refer to previous reports for further examination of categories of illness and statistical information.

Tables 1, 1A, and 1B represent the total active patients by age and diagnostic categories in treatment as of the end of the year 1981. The number of active patients increased somewhat from last year in opposition to the trend begun in 1976.

Table 2 represents a breakdown of division of services (inpatient versus outpatient) by location. These figures represent a population based utilization by catchment area of mental health services both at the community level, represented by outpatient care, and centrally at the Hawaii State Hospital and County/State Hospitals by inpatient care.

Tables 3A and 3B are both further explications of this inpatient/outpatient breakdown by diagnosis and age. The usual relatively large proportion of severely ill patients, such as schizophrenics, are being treated in an inpatient setting.

Tables 4, 5, and 6 represent admissions to the total State and to the various area services provided by the Mental Health Division for the entire calendar year. This represents an incidence figure of cases over a period of time. The breakdown is by diagnosis, ethnicity, source of referral, and age. Combined with past report tables, these tables display trends in the types of problems that are occurring, those people who have these problems, and their frequency of occurrence.

Tables 7, 7A, and 7B represent unduplicated total admissions for the year broken down by ethnicity, age on admission, mean age, diagnosis, and sex. Mean age here represents an average age for each category which allows one to look at an aggregate figure rather than a simple frequency distribution.

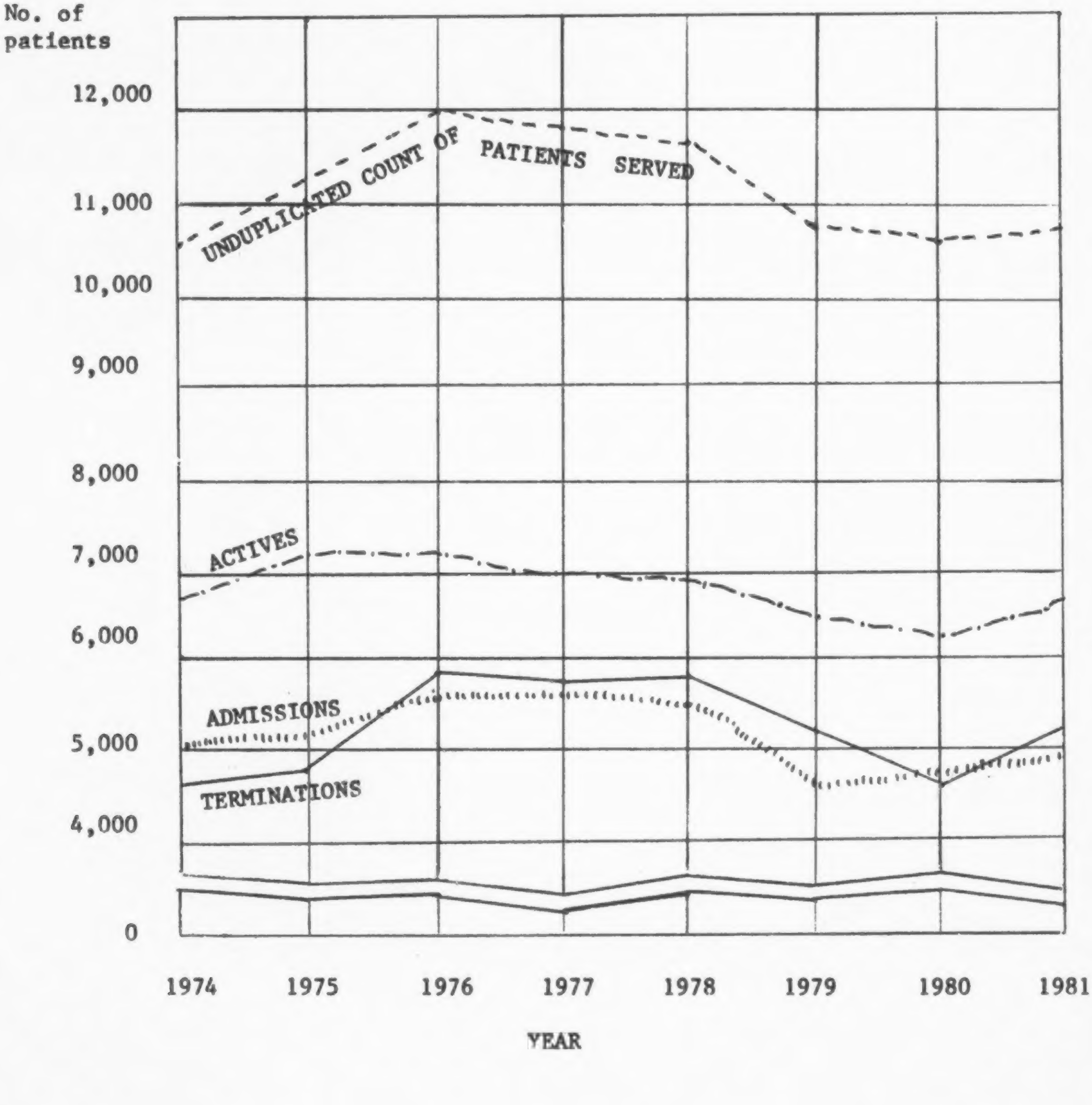
Tables 8 and 9 represent terminations during the year by geographic and service units as well as by age and diagnosis. Certain categories of diagnosis representing a preponderance of cases, both for admission and termination, are of use in planning.

Table 10 represents an unduplicated count of patients served in all facilities by their most recent diagnosis and age as of the period January through December, 1981.

Figure 1

MENTAL HEALTH DIVISION MOVEMENT SUMMARY

1974 - 1981



## TABLE 1
## PATIENTS ACTIVE DEC. 31, 1981, IN STATE MENTAL HEALTH FACILITIES BY MOST RECENT DIAGNOSIS AND AGE AS OF DEC. 31, 1981

SEX = TOTAL

CURRENT AGE BY MOST RECENT PRIMARY DIAGNOSIS

| | TOTAL | 0 - 4 | 5 - 9 | 10 - 14 | 15 - 17 | 18 - 19 | 20 - 24 | 25 - 34 | 35 - 44 | 45 - 54 | 55 - 64 | 65 & OVER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL | 6642 | 23 | 209 | 534 | 464 | 186 | 602 | 1722 | 1078 | 740 | 599 | 485 |
| OBS* ASSOC. ALCOH. | 23 | | | | | | | 2 | 3 | 3 | 5 | 10 |
| OBS* ASSOC. DRUG | 17 | | | | 1 | 1 | 6 | 4 | 3 | | 2 | |
| OTHER OBS* | 228 | 1 | 1 | 3 | 5 | 1 | 17 | 36 | 16 | 17 | 31 | 100 |
| SCHIZO-PHRENIA | 1807 | | 2 | 8 | 10 | 11 | 140 | 426 | 357 | 339 | 313 | 201 |
| OTHER PSYCHOSES | 282 | | | | 2 | 4 | 11 | 53 | 64 | 52 | 50 | 46 |
| PSYCHO-PHYSIO. DISORD. | 20 | | | 2 | | | | 8 | 3 | 3 | 4 | |
| NEUROSES | 719 | | | 8 | 14 | 13 | 61 | 232 | 177 | 97 | 75 | 42 |
| ALCOH. | 169 | | | | | 1 | 13 | 63 | 38 | 35 | 17 | 2 |
| DRUG DEPEND. | 118 | | | 1 | 2 | 6 | 23 | 70 | 11 | 3 | 1 | 1 |
| OTHER PERSON. DISORD. | 475 | | 2 | 9 | 8 | 7 | 92 | 197 | 99 | 33 | 19 | 9 |
| TRANS. SITUAT. DISORD. | 1374 | 16 | 120 | 292 | 217 | 71 | 110 | 261 | 135 | 75 | 35 | 42 |
| BEHAV. DISORD. | 768 | 1 | 50 | 145 | 112 | 31 | 68 | 203 | 105 | 27 | 16 | 10 |
| MENTAL RETARD. | 184 | 1 | 6 | 14 | 14 | 9 | 18 | 48 | 24 | 22 | 22 | 6 |
| NO MENTAL DISORD. | 150 | 3 | 17 | 23 | 12 | 6 | 17 | 36 | 16 | 11 | 3 | 6 |
| DIAGNOSIS DEFER. | 308 | 1 | 11 | 29 | 67 | 25 | 26 | 83 | 27 | 23 | 6 | 10 |
| MISSING | | | | | | | | | | | | |

*ORGANIC BRAIN SYNDROME

TABLE 1A
PATIENTS ACTIVE DEC. 31, 1981, IN STATE MENTAL HEALTH FACILITIES
BY MOST RECENT DIAGNOSIS AND AGE AS OF DEC. 31, 1981

SEX = MALE

CURRENT AGE BY MOST RECENT PRIMARY DIAGNOSIS

| | TOTAL | 0 - 4 | 5 - 9 | 10 - 14 | 15 - 17 | 18 - 19 | 20 - 24 | 25 - 34 | 35 - 44 | 45 - 54 | 55 - 64 | 65 & OVER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL | 3532 | 17 | 148 | 360 | 276 | 93 | 355 | 1021 | 502 | 301 | 241 | 218 |
| OBS* ASSOC. ALCOH. | 18 | | | | | | | 2 | 3 | 1 | 4 | 8 |
| OBS* ASSOC. DRUG | 13 | | | | 1 | 1 | 4 | 3 | 3 | | 1 | |
| OTHER OBS* | 132 | 1 | 1 | 2 | 2 | 1 | 13 | 26 | 14 | 9 | 17 | 46 |
| SCHIZO-PHRENIA | 964 | | 2 | 8 | 6 | 8 | 91 | 304 | 169 | 148 | 138 | 90 |
| OTHER PSYCHOSES | 108 | | | | 1 | 3 | 6 | 27 | 32 | 16 | 9 | 14 |
| PSYCHO-PHYSIO. DISORD. | 11 | | | 2 | | | | 5 | 2 | 1 | 1 | |
| NEUROSES | 268 | | | 5 | 8 | 6 | 24 | 103 | 54 | 27 | 26 | 15 |
| ALCOH. | 148 | | | | | | 10 | 54 | 35 | 32 | 15 | 2 |
| DRUG DEPEND. | 99 | | | | 2 | 5 | 15 | 63 | 10 | 2 | 1 | 1 |
| OTHER PERSON. DISORD. | 316 | | 1 | 6 | 4 | 4 | 72 | 142 | 57 | 17 | 7 | 6 |
| TRANS. SITUAT. DISORD. | 631 | 12 | 85 | 182 | 127 | 26 | 35 | 81 | 42 | 15 | 6 | 20 |
| BEHAV. DISORD. | 446 | | 39 | 107 | 69 | 19 | 49 | 95 | 47 | 9 | 6 | 6 |
| MENTAL RETARD. | 112 | 1 | 4 | 11 | 8 | 6 | 12 | 38 | 11 | 11 | 7 | 3 |
| NO MENTAL DISORD. | 91 | 2 | 11 | 16 | 3 | 5 | 11 | 23 | 10 | 6 | 2 | 2 |
| DIAG-NOSIS DEFER. | 175 | 1 | 5 | 21 | 45 | 9 | 13 | 55 | 13 | 7 | 1 | 5 |
| MISSING | | | | | | | | | | | | |

*ORGANIC BRAIN SYNDROME

### TABLE 1B
### PATIENTS ACTIVE DEC. 31, 1981, IN STATE MENTAL HEALTH FACILITIES BY MOST RECENT DIAGNOSIS AND AGE AS OF DEC. 31, 1981

SEX = FEMALE

CURRENT AGE BY MOST RECENT PRIMARY DIAGNOSIS

| | TOTAL | 0 - 4 | 5 - 9 | 10 - 14 | 15 - 17 | 18 - 19 | 20 - 24 | 25 - 34 | 35 - 44 | 45 - 54 | 55 - 64 | 65 & OVER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL | 3110 | 6 | 61 | 174 | 188 | 93 | 247 | 701 | 576 | 439 | 358 | 267 |
| OBS* ASSOC. ALCOH. | 5 | | | | | | | | | 2 | 1 | 2 |
| OBS* ASSOC. DRUG | 4 | | | | | | 2 | 1 | | | 1 | |
| OTHER OBS* | 96 | | | 1 | 3 | | 4 | 10 | 2 | 8 | 14 | 54 |
| SCHIZOPHRENIA | 843 | | | | 4 | 3 | 49 | 122 | 188 | 191 | 175 | 111 |
| OTHER PSYCHOSES | 174 | | | | 1 | 1 | 5 | 26 | 32 | 36 | 41 | 32 |
| PSYCHO-PHYSIO. DISORD. | 9 | | | | | | | 3 | 1 | 2 | 3 | |
| NEUROSES | 451 | | | 3 | 6 | 7 | 37 | 129 | 123 | 70 | 49 | 27 |
| ALCOH. | 21 | | | | | 1 | 3 | 9 | 3 | 3 | 2 | |
| DRUG DEPEND. | 19 | | | 1 | | 1 | 8 | 7 | 1 | 1 | | |
| OTHER PERSON. DISORD. | 159 | | 1 | 3 | 4 | 3 | 20 | 55 | 42 | 16 | 12 | 3 |
| TRANS. SITUAT. DISORD. | 743 | 4 | 35 | 110 | 90 | 45 | 75 | 180 | 93 | 60 | 29 | 22 |
| BEHAV. DISORD. | 322 | 1 | 11 | 38 | 43 | 12 | 19 | 108 | 58 | 18 | 10 | 4 |
| MENTAL RETARD. | 72 | | 2 | 3 | 6 | 3 | 6 | 10 | 13 | 11 | 15 | 3 |
| NO MENTAL DISORD. | 59 | 1 | 6 | 7 | 9 | 1 | 6 | 13 | 6 | 5 | 1 | 4 |
| DIAGNOSIS DEFER. | 133 | | 6 | 8 | 22 | 16 | 13 | 28 | 14 | 16 | 5 | 5 |
| MISSING | | | | | | | | | | | | |

*ORGANIC BRAIN SYNDROME

## TABLE 2
## PATIENTS ACTIVE DEC. 31, 1981, IN STATE MENTAL HEALTH FACILITIES BY COMPREHENSIVE CENTERS OR SPECIAL SERVICES AND TYPE OF SERVICE

COMPREHENSIVE MH CENTER OR SERVICE BY TYPE OF CARE

| | TOTAL | CENTRAL OAHU | WIND-WARD | LEEWARD | DIAMOND HEAD | KALIHI-PALAMA | MAUI | EAST HAWAII | WEST HAWAII | KAUAI | HSH & CENTRAL SRVS | OTHER SRVS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL | 6642 | 585 | 627 | 680 | 1020 | 1215 | 474 | 676 | 430 | 302 | 599 | 34 |
| IN-PATIENT CARE | 408 | 46 | 40 | 30 | 72 | 73 | 16 | 28 | 6 | 7 | 83 | 7 |
| OUT-PATIENT CARE | 6213 | 539 | 587 | 650 | 948 | 1142 | 458 | 648 | 424 | 295 | 516 | 27 |

TABLE 3A
-PATIENTS ACTIVE DEC. 31, 1981, IN STATE MENTAL HEALTH FACILITIES
BY MOST RECENT DIAGNOSIS AND AGE AS OF DEC. 31, 1981

TYPE OF CARE = IN- PATIENT CARE

CURRENT AGE BY MOST RECENT PRIMARY DIAGNOSIS

| | TOTAL | 0 - 4 | 5 - 9 | 10 - 14 | 15 - 17 | 18 - 19 | 20 - 24 | 25 - 34 | 35 - 44 | 45 - 54 | 55 - 64 | 65 & OVER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL | 408 | | 5 | 8 | 30 | 20 | 52 | 123 | 80 | 45 | 31 | 14 |
| OBS* ASSOC. ALCOH. | 2 | | | | | | | 1 | | 1 | | |
| OBS* ASSOC. DRUG | 6 | | | | | 1 | 3 | | 2 | | | |
| OTHER OBS* | 18 | | | | | | 3 | 1 | | 1 | 7 | 6 |
| SCHIZO-PHRENIA | 219 | | | | 3 | 8 | 31 | 80 | 52 | 26 | 16 | 3 |
| OTHER PSYCHO-SES | 47 | | | | 2 | 1 | 2 | 11 | 16 | 6 | 5 | 4 |
| PSYCHO-PHYSIO. DISORD. | | | | | | | | | | | | |
| NEURO-SES | 14 | | | 1 | 1 | 1 | 5 | 2 | 3 | 1 | | |
| ALCOH. | 2 | | | | | | | 1 | | 1 | | |
| DRUG DEPEND. | 5 | | | | | 1 | 2 | 2 | | | | |
| OTHER PERSON. DISORD. | 19 | | 1 | | | 1 | 4 | 7 | 2 | 2 | 2 | |
| TRANS. SITUAT. DISORD. | 31 | | 1 | 2 | 13 | 3 | 1 | 5 | 3 | 2 | 1 | |
| BEHAV. DISORD. | 19 | | 3 | 5 | 8 | 1 | | 1 | 1 | | | |
| MENTAL RETARD. | 12 | | | | | 2 | | 6 | 1 | 3 | | |
| NO MENTAL DISORD. | | | | | | | | | | | | |
| DIAG-NOSIS DEFER. | 14 | | | | 3 | 1 | 1 | 6 | | 2 | | 1 |
| MISSING | | | | | | | | | | | | |

*ORGANIC BRAIN SYNDROME

TABLE 3B
-PATIENTS ACTIVE DEC. 31, 1981, IN STATE MENTAL HEALTH FACILITIES
BY MOST RECENT DIAGNOSIS AND AGE AS OF DEC. 31, 1981

TYPE OF CARE = OUT- PATIENT CARE

CURRENT AGE BY MOST RECENT PRIMARY DIAGNOSIS

| | TOTAL | 0 - 4 | 5 - 9 | 10 - 14 | 15 - 17 | 18 - 19 | 20 - 24 | 25 - 34 | 35 - 44 | 45 - 54 | 55 - 64 | 65 & OVER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL | 6213 | 23 | 204 | 525 | 434 | 165 | 549 | 1592 | 996 | 692 | 563 | 470 |
| OBS* ASSOC. ALCOH. | 21 | | | | | | | 1 | 3 | 2 | 5 | 10 |
| OBS* ASSOC. DRUG | 11 | | | | 1 | | 3 | 4 | 1 | | 2 | |
| OTHER OBS* | 207 | 1 | 1 | 3 | 5 | 1 | 14 | 32 | 16 | 16 | 24 | 94 |
| SCHIZO-PHRENIA | 1582 | | 2 | 8 | 7 | 2 | 108 | 344 | 304 | 312 | 297 | 198 |
| OTHER PSYCHO-SES | 234 | | | | | 3 | 9 | 42 | 48 | 45 | 45 | 42 |
| PSYCHO-PHYSIO. DISORD. | 18 | | | 2 | | | | 8 | 3 | 3 | 2 | |
| NEURO-SES | 701 | | | 7 | 13 | 12 | 56 | 230 | 174 | 95 | 73 | 41 |
| ALCOH. | 167 | | | | | 1 | 13 | 62 | 38 | 34 | 17 | 2 |
| DRUG DEPEND. | 113 | | | 1 | 2 | 5 | 21 | 68 | 11 | 3 | 1 | 1 |
| OTHER PERSON. DISORD. | 454 | | 1 | 9 | 8 | 6 | 88 | 189 | 97 | 31 | 16 | 9 |
| TRANS. SITUAT. DISORD. | 1342 | 16 | 119 | 289 | 204 | 68 | 109 | 256 | 132 | 73 | 34 | 42 |
| BEHAV. DISORD. | 747 | 1 | 47 | 140 | 104 | 30 | 68 | 201 | 103 | 27 | 16 | 10 |
| MENTAL RETARD. | 172 | 1 | 6 | 14 | 14 | 7 | 18 | 42 | 23 | 19 | 22 | 6 |
| NO MENTAL DISORD. | 150 | 3 | 17 | 23 | 12 | 6 | 17 | 36 | 16 | 11 | 3 | 6 |
| DIAG-NOSIS DEFER. | 294 | 1 | 11 | 29 | 64 | 24 | 25 | 77 | 27 | 21 | 6 | 9 |
| MISSING | | | | | | | | | | | | |

*ORGANIC BRAIN SYNDROME

### TABLE 4
### ADMISSIONS TO STATE MENTAL HEALTH FACILITIES. 1/1/81 TO 12/31/81
### BY AGE AND DIAGNOSIS ON ADMISSION

ADMISSION AGE BY PRIMARY ADMISSION DIAGNOSIS

| | TOTAL | 0 - 4 | 5 - 9 | 10 - 14 | 15 - 17 | 18 - 19 | 20 - 24 | 25 - 34 | 35 - 44 | 45 - 54 | 55 - 64 | 65 & OVER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL | 4947 | 40 | 265 | 473 | 367 | 186 | 677 | 1534 | 739 | 359 | 192 | 115 |
| OBS* ASSOC. ALCOH. | 21 | | | | | | 3 | 3 | 3 | 6 | 5 | 1 |
| OBS* ASSOC. DRUG | 26 | | | | 4 | 5 | 9 | 5 | 2 | | 1 | |
| OTHER OBS* | 308 | 2 | 9 | 23 | 35 | 10 | 35 | 71 | 37 | 23 | 15 | 48 |
| SCHIZOPHRENIA | 953 | | 1 | 5 | 12 | 42 | 166 | 374 | 187 | 109 | 48 | 9 |
| OTHER PSYCHOSES | 211 | | | 1 | 2 | 6 | 18 | 59 | 52 | 46 | 21 | 6 |
| PSYCHO-PHYSIO. DISORD. | 16 | | | 1 | | | | 4 | 5 | 2 | 2 | 2 |
| NEUROSES | 561 | | 1 | 15 | 12 | 17 | 82 | 211 | 114 | 59 | 36 | 14 |
| ALCOH. | 187 | | | | 2 | 3 | 16 | 80 | 37 | 38 | 11 | |
| DRUG DEPEND. | 82 | | | 2 | 3 | 7 | 23 | 42 | 5 | | | |
| OTHER PERSON. DISORD. | 364 | | 3 | 11 | 16 | 16 | 81 | 155 | 63 | 8 | 9 | 2 |
| TRANS. SITUAT. DISORD. | 1012 | 10 | 120 | 228 | 150 | 40 | 103 | 221 | 78 | 32 | 16 | 14 |
| BEHAV. DISORD. | 671 | 7 | 81 | 117 | 82 | 9 | 63 | 186 | 98 | 16 | 9 | 3 |
| MENTAL RETARD. | 50 | 5 | 2 | 9 | 6 | 8 | 3 | 9 | 3 | 2 | 1 | 2 |
| NO MENTAL DISORD. | 168 | 9 | 12 | 16 | 12 | 4 | 33 | 41 | 22 | 8 | 5 | 6 |
| DIAGNOSIS DEFER. | 317 | 7 | 36 | 45 | 31 | 19 | 42 | 73 | 33 | 10 | 13 | 8 |
| MISSING | | | | | | | | | | | | |

*ORGANIC BRAIN SYNDROME

## TABLE 5
## ADMISSIONS TO STATE MENTAL HEALTH FACILITIES, 1/1/81 TO 12/31/81
## BY ETHNIC GROUP AND CATCHMENT AREA ON ADMISSION

CATCHMENT AREA BY ETHNIC GROUP

| | TOTAL | DIAMOND HEAD | KALIHI-PALAMA | CENTRAL OAHU | WIND-WARD | LEEWARD | EAST HAWAII | WEST HAWAII | MAUI | KAUAI | OTHER/ UNKNOWN |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL | 4947 | 782 | 738 | 567 | 469 | 516 | 328 | 387 | 363 | 199 | 598 |
| CAUCA. | 1761 | 329 | 119 | 143 | 182 | 113 | 131 | 235 | 159 | 80 | 270 |
| PORTUG. | 203 | 11 | 22 | 15 | 27 | 33 | 26 | 17 | 17 | 16 | 19 |
| BLACK | 100 | 15 | 20 | 15 | 8 | 6 | 3 | 1 | 5 | 2 | 25 |
| P.RICAN | 114 | 5 | 18 | 20 | 3 | 20 | 10 | 7 | 7 | 5 | 19 |
| JAPNESE | 529 | 130 | 74 | 89 | 52 | 35 | 31 | 15 | 27 | 18 | 58 |
| CHINESE | 144 | 47 | 43 | 14 | 11 | 2 | 3 | | 2 | 1 | 21 |
| KOREAN | 60 | 17 | 14 | 15 | 1 | 7 | 1 | 1 | 2 | | 2 |
| FILIPNO | 457 | 24 | 125 | 67 | 16 | 80 | 20 | 23 | 33 | 33 | 36 |
| PT.HAWN | 879 | 91 | 170 | 98 | 88 | 145 | 75 | 53 | 63 | 30 | 66 |
| SAMOAN | 111 | 8 | 52 | 14 | 11 | 10 | 2 | | 2 | 2 | 10 |
| UNKNOWN | 103 | 10 | 8 | 8 | 13 | 20 | 3 | 10 | 11 | 5 | 15 |
| OTHER | 169 | 40 | 24 | 21 | 18 | 18 | 5 | 13 | 13 | 2 | 15 |
| MISSING | 317 | 55 | 49 | 48 | 39 | 27 | 18 | 12 | 22 | 5 | 42 |

## TABLE 6
## ADMISSIONS TO STATE MINTAL HEALTH FACILITIES, 1/1/81 TO 12/31/81 BY REFERRAL SOURCE AND COMMUNITY MENTAL HEALTH CENTER OR SERVICE

COMPREHENSIVE MH CENTER OR SERVICE BY SOURCE OF REFERRAL

| | TOTAL | CENTRAL OAHU | WIND-WARD | LEEWARD | DIAMOND HEAD | KALIHI-PALAMA | MAUI | EAST HAWAII | WEST HAWAII | KAUAI | HSH & CENTRAL SRVS | OTHER SRVS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SELF FAMILY FRIEND | 1774 | 240 | 126 | 238 | 328 | 161 | 158 | 148 | 244 | 108 | 19 | 4 |
| CLERGY | 20 | 3 | | 1 | 4 | 4 | 3 | 1 | 1 | 2 | 1 | |
| NON PSYCH. PHYSICN | 165 | 11 | 11 | 18 | 8 | 5 | 23 | 28 | 47 | 5 | 8 | 1 |
| PRIVATE PRACTIC PROFESS | 161 | 8 | 14 | 8 | 24 | 41 | 4 | 13 | 22 | 4 | 18 | 5 |
| PUBLIC PSYCH. HOSP. | 159 | 9 | 32 | 28 | 37 | 41 | 6 | 4 | | 1 | 1 | |
| OTHER PSYCH. HOSP. | 169 | 28 | 16 | 26 | 37 | 41 | 2 | 8 | 4 | | 7 | |
| COMUNTY M.H. CENTER | 104 | 10 | 15 | 3 | 21 | 22 | 5 | 6 | 3 | 8 | 8 | 3 |
| OTHER NONPSYC HOSP | 364 | 45 | 43 | 44 | 106 | 63 | 12 | 5 | 6 | 16 | 12 | 12 |
| OUTPAT M.H. CLINIC | 25 | 2 | 2 | 1 | 4 | 7 | 2 | | 2 | 1 | 1 | 3 |
| SCHOOL SYSTEM | 509 | 89 | 30 | 106 | 45 | 130 | 36 | 49 | 1 | 10 | 10 | 3 |
| SOCIAL OR COM. AGENCY | 267 | 23 | 13 | 32 | 34 | 58 | 27 | 25 | 21 | 5 | 27 | 2 |
| COURT ENFORCE CORRECT | 840 | 39 | 13 | 25 | 37 | 36 | 28 | 51 | 19 | 31 | 561 | |
| OTHER | 352 | 32 | 24 | 31 | 60 | 87 | 22 | 18 | 23 | 18 | 34 | 3 |
| UNKNOWN | 38 | 2 | 2 | | 2 | 1 | | | 1 | 3 | 23 | 4 |

TABLE 7
UNDUPLICATED ADMISSICNS TO STATE MENTAL HEALTH FACILITIES.
1/1/81 TO 12/31/81. ETHNIC GROUP BY DIAGNOSIS ON ADMISSION
INCLUDING MEAN AGE ON ADMISSION

SEX = TOTAL

ETHNIC GROUP BY PRIMARY ADMISSION DIAGNOSIS

| | TOTAL | CAUCA. | HAWN | CHINESE | FILIP. | JAPAN. | P.RICAN | PT.HAWN | PORTUG. | OTHER | UNKNOWN | MISSING | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL | 4474<br>28.5 | 1609<br>30.8 | 25<br>33.0 | 132<br>33.4 | 412<br>28.0 | 470<br>31.9 | 98<br>28.9 | 790<br>24.4 | 180<br>29.8 | 391<br>24.9 | 98<br>24.4 | 269<br>23.7 | RAW<br>MEAN1 |
| OBS* ASSOC. ALCOH. | 20<br>45.2 | 12<br>46.6 | | | 2<br>37.5 | 1<br>54.0 | | 4<br>40.0 | | 1<br>57.0 | | | RAW<br>MEAN1 |
| OBS* ASSOC. DRUG | 17<br>24.1 | 6<br>25.0 | | | | 2<br>42.0 | 1<br>16.0 | 5<br>21.2 | | 1<br>22.0 | 1<br>15.0 | 1<br>17.0 | RAW<br>MEAN1 |
| OTHER OBS | 67<br>56.8 | 19<br>50.4 | 1<br>50.0 | 2<br>49.0 | 17<br>56.4 | 5<br>78.0 | 3<br>70.3 | 7<br>58.6 | 5<br>58.0 | 3<br>65.3 | 4<br>47.2 | 1<br>55.0 | RAW<br>MEAN1 |
| SCHIZO-PHRENIA | 714<br>33.4 | 223<br>32.5 | 5<br>40.4 | 37<br>32.5 | 72<br>30.9 | 133<br>37.9 | 6<br>40.2 | 94<br>31.8 | 20<br>33.4 | 72<br>30.7 | 9<br>29.2 | 43<br>35.7 | RAW<br>MEAN1 |
| OTHER PSYCHOS | 159<br>38.6 | 74<br>36.3 | 1<br>51.0 | 3<br>44.0 | 13<br>39.2 | 11<br>46.0 | 2<br>56.5 | 23<br>41.2 | 10<br>41.6 | 15<br>31.3 | 3<br>44.0 | 4<br>42.0 | RAW<br>MEAN1 |
| PSYCHO-PHYSIO. DISORD. | 16<br>43.7 | 9<br>44.3 | 1<br>30.0 | 1<br>69.0 | | 1<br>28.0 | | 1<br>44.0 | | 2<br>47.5 | 1<br>34.0 | | RAW<br>MEAN1 |
| NEURO-SES | 526<br>34.3 | 242<br>34.9 | 1<br>30.0 | 20<br>38.6 | 36<br>35.4 | 55<br>34.8 | 11<br>31.5 | 68<br>31.9 | 27<br>38.9 | 31<br>31.2 | 9<br>35.9 | 26<br>28.9 | RAW<br>MEAN1 |
| ALCOH. | 170<br>36.0 | 109<br>37.2 | 1<br>52.0 | 2<br>51.0 | 6<br>29.8 | 5<br>31.0 | 5<br>39.2 | 18<br>32.7 | 5<br>38.4 | 9<br>27.6 | 2<br>31.5 | 8<br>35.9 | RAW<br>MEAN1 |
| DRUG DEPEND. | 72<br>25.7 | 19<br>26.6 | | 1<br>24.0 | 1<br>24.0 | 7<br>25.3 | 6<br>24.0 | 21<br>25.6 | 2<br>31.0 | 9<br>27.0 | | 6<br>21.8 | RAW<br>MEAN1 |
| OTHER PER.DIS | 338<br>28.8 | 125<br>30.7 | 1<br>21.0 | 8<br>29.0 | 23<br>29.7 | 33<br>31.3 | 10<br>27.3 | 69<br>25.1 | 7<br>36.4 | 27<br>31.1 | 5<br>26.0 | 30<br>23.7 | RAW<br>MEAN1 |
| TRANS. SITUAT. DISORD. | 989<br>21.8 | 314<br>25.8 | 4<br>35.7 | 30<br>28.7 | 116<br>19.1 | 86<br>23.8 | 23<br>20.2 | 200<br>19.1 | 42<br>20.2 | 90<br>18.3 | 23<br>17.4 | 61<br>17.2 | RAW<br>MEAN1 |
| BEHAVIO DISORDS | 650<br>23.4 | 228<br>26.8 | 3<br>25.3 | 7<br>26.4 | 65<br>25.9 | 49<br>24.1 | 16<br>22.2 | 173<br>19.7 | 32<br>24.1 | 67<br>20.2 | 16<br>20.5 | 44<br>16.3 | RAW<br>MEAN1 |
| MENTAL RETARDA | 48<br>22.9 | 5<br>13.6 | 1<br>32.0 | | 6<br>25.8 | 4<br>34.5 | 2<br>8.5 | 11<br>24.1 | 5<br>34.4 | 5<br>14.2 | 3<br>15.3 | 6<br>22.2 | RAW<br>MEAN1 |
| NO MENTAL DISORD. | 168<br>26.6 | 56<br>29.2 | 1<br>49.0 | 2<br>48.5 | 13<br>29.9 | 18<br>31.4 | 4<br>43.7 | 35<br>24.5 | 2<br>13.0 | 20<br>18.3 | 8<br>17.7 | 9<br>19.0 | RAW<br>MEAN1 |
| DIAG-NOSIS DEFFR. | 299<br>24.1 | 95<br>28.7 | 1<br>17.0 | 7<br>33.9 | 28<br>26.4 | 33<br>23.3 | 7<br>28.4 | 69<br>18.3 | 12<br>21.5 | 27<br>24.0 | 5<br>11.4 | 15<br>19.3 | RAW<br>MEAN1 |
| OTHER | | | | | | | | | | | | | RAW<br>MEAN1 |
| MISSING | 221<br>28.8 | 73<br>29.9 | 4<br>18.2 | 12<br>33.3 | 14<br>30.4 | 27<br>34.6 | 2<br>42.5 | 42<br>23.1 | 11<br>32.2 | 12<br>26.2 | 9<br>30.0 | 15<br>24.2 | RAW<br>MEAN1 |

*ORGANIC BRAIN SYNDROME
**UPPER FIGURE REPRESENTS NUMBER OF ADMISSIONS.
LOWER FIGURE REPRESENTS MEAN AGE OF ADMISSION.

TABLE 7A
UNDUPLICATED ADMISSIONS TO STATE MENTAL HEALTH FACILITIES.
1/1/81 TO 12/31/81. ETHNIC GROUP BY DIAGNOSIS ON ADMISSION
INCLUDING MEAN AGE ON ADMISSION

SEX = MALE

ETHNIC GROUP BY PRIMARY ADMISSION DIAGNOSIS

| | TOTAL | CAUCA. | HAWN | CHINFSE | FILIP. | JAPAN. | P.RICAN | PT.HAWN | PORTUG. | OTHER | UNKNOWN | MISSING | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL | 2553<br>26.8 | 861<br>29.9 | 17<br>30.2 | 63<br>30.9 | 254<br>26.9 | 254<br>29.2 | 61<br>30.0 | 488<br>23.1 | 100<br>28.0 | 221<br>23.3 | 61<br>21.2 | 173<br>21.7 | RAW<br>MEAN1 |
| OBS* ASSOC. ALCOH. | 15<br>44.2 | 8<br>42.2 | | | 1<br>54.0 | 1<br>54.0 | | 4<br>40.0 | | 1<br>57.0 | | | RAW<br>MEAN1 |
| OBS* ASSOC. DRUG | 12<br>21.2 | 4<br>25.0 | | | | | 1<br>16.0 | 4<br>21.0 | | 1<br>22.0 | 1<br>15.0 | 1<br>17.0 | RAW<br>MEAN1 |
| OTHER OBS | 31<br>57.3 | 6<br>42.8 | 1<br>50.0 | 1<br>15.0 | 9<br>71.2 | 2<br>71.0 | 2<br>70.5 | 2<br>63.5 | 3<br>60.7 | 1<br>39.0 | 3<br>42.0 | 1<br>55.0 | RAW<br>MEAN1 |
| SCHIZO-PHRENIA | 465<br>31.5 | 142<br>31.4 | 2<br>29.5 | 22<br>29.5 | 52<br>28.9 | 85<br>34.6 | 4<br>46.2 | 58<br>30.5 | 15<br>32.7 | 48<br>29.0 | 6<br>27.7 | 31<br>33.4 | RAW<br>MEAN1 |
| OTHER PSYCHOS | 90<br>38.2 | 43<br>36.7 | | 2<br>42.0 | 2<br>29.5 | 6<br>45.8 | 1<br>78.0 | 16<br>40.5 | 8<br>40.7 | 11<br>30.8 | | 1<br>54.0 | RAW<br>MEAN1 |
| PSYCHO-PHYSIO. DISORD. | 6<br>41.8 | 4<br>44.7 | | | | 1<br>28.0 | | 1<br>44.0 | | | | | RAW<br>MEAN1 |
| NEURO-SES | 192<br>33.8 | 86<br>36.7 | | 5<br>42.4 | 16<br>31.2 | 21<br>33.8 | 7<br>27.4 | 21<br>29.4 | 11<br>39.8 | 10<br>29.3 | 4<br>31.5 | 11<br>21.8 | RAW<br>MEAN1 |
| ALCOH. | 147<br>35.9 | 92<br>36.8 | 1<br>52.0 | 2<br>51.0 | 6<br>29.8 | 5<br>31.0 | 3<br>44.0 | 15<br>34.3 | 4<br>39.5 | 9<br>27.6 | 2<br>31.5 | 8<br>35.9 | RAW<br>MEAN1 |
| DRUG DEPEND. | 55<br>25.8 | 17<br>27.1 | | 1<br>24.0 | 1<br>24.0 | 6<br>25.0 | 4<br>23.2 | 15<br>25.5 | 1<br>35.0 | 6<br>28.0 | | 4<br>21.2 | RAW<br>MEAN1 |
| OTHER PER.DIS | 228<br>28.0 | 76<br>30.6 | 1<br>21.0 | 3<br>31.7 | 15<br>31.4 | 19<br>28.5 | 7<br>25.1 | 57<br>24.9 | 5<br>37.4 | 18<br>27.2 | 4<br>26.0 | 23<br>23.7 | RAW<br>MEAN1 |
| TRANS. SITUAT. DISORD. | 479<br>18.5 | 133<br>22.4 | 3<br>38.7 | 12<br>22.1 | 70<br>15.7 | 39<br>19.0 | 12<br>22.2 | 111<br>17.1 | 21<br>17.3 | 31<br>14.8 | 11<br>14.4 | 36<br>14.8 | RAW<br>MEAN1 |
| BEHAVIO DISORDS | 361<br>21.2 | 115<br>24.0 | 2<br>22.5 | 2<br>27.0 | 36<br>26.9 | 22<br>23.5 | 10<br>20.0 | 73<br>17.9 | 15<br>19.1 | 45<br>19.9 | 10<br>16.9 | 31<br>14.5 | RAW<br>MEAN1 |
| MENTAL RETARDA | 28<br>21.0 | 2<br>10.0 | 1<br>32.0 | | 4<br>29.7 | 2<br>45.0 | 1<br>11.0 | 7<br>20.9 | 3<br>21.7 | 3<br>12.3 | 3<br>15.3 | 2<br>10.5 | RAW<br>MEAN1 |
| NO MENTAL DISORD. | 112<br>26.9 | 34<br>30.2 | 1<br>49.0 | 2<br>48.5 | 11<br>33.5 | 9<br>18.8 | 2<br>49.0 | 27<br>26.0 | | 13<br>18.0 | 7<br>18.9 | 6<br>22.2 | RAW<br>MEAN1 |
| DIAG-NOSIS DEFER. | 193<br>21.4 | 53<br>27.2 | 1<br>17.0 | 5<br>36.0 | 20<br>25.0 | 24<br>21.4 | 5<br>30.8 | 43<br>15.5 | 9<br>17.0 | 18<br>16.4 | 4<br>11.0 | 11<br>14.3 | RAW<br>MEAN1 |
| OTHER | | | | | | | | | | | | | RAW<br>MEAN1 |
| MISSING | 139<br>26.7 | 46<br>28.7 | 4<br>18.2 | 6<br>28.8 | 11<br>31.5 | 12<br>31.6 | 2<br>42.5 | 34<br>22.5 | 5<br>22.8 | 6<br>30.0 | 6<br>24.2 | 7<br>19.4 | RAW<br>MEAN1 |

*ORGANIC BRAIN SYNDROME
**UPPER FIGURE REPRESENTS NUMBER OF ADMISSIONS.
LOWER FIGURE REPRESENTS MEAN AGE OF ADMISSION.

TABLE 7B
UNDUPLICATED ADMISSIONS TO STATE MENTAL HEALTH FACILITIES.
1/1/81 TO 12/31/81. ETHNIC GROUP BY DIAGNOSIS ON ADMISSION
INCLUDING MEAN AGE ON ADMISSION

SEX = FEMALE

ETHNIC GROUP BY PRIMARY ADMISSION DIAGNOSIS

| | TOTAL | CAUCA. | HAWN | CHINESE | FILIP. | JAPAN. | P.RICAN | PT.HAWN | PORTUG. | OTHER | UNKNOWN | MISSING | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL | 1921<br>30.7 | 748<br>31.9 | 8<br>39.0 | 69<br>35.7 | 158<br>29.8 | 216<br>35.2 | 37<br>27.3 | 302<br>26.6 | 80<br>32.1 | 170<br>27.1 | 37<br>29.7 | 96<br>27.4 | RAW<br>MEAN1 |
| OBS* ASSOC. ALCOH. | 5<br>48.4 | 4<br>55.2 | | | 1<br>21.0 | | | | | | | | RAW<br>MEAN1 |
| OBS* ASSOC. DRUG | 5<br>31.2 | 2<br>25.0 | | | | 2<br>42.0 | | 1<br>22.0 | | | | | RAW<br>MEAN1 |
| OTHER OBS | 36<br>56.4 | 13<br>53.9 | | 1<br>83.0 | 8<br>39.7 | 3<br>82.7 | 1<br>70.0 | 5<br>56.6 | 2<br>54.0 | 2<br>78.5 | 1<br>63.0 | | RAW<br>MEAN1 |
| SCHIZO-PHRENIA | 249<br>36.9 | 81<br>34.5 | 3<br>47.7 | 15<br>37.0 | 20<br>36.3 | 48<br>43.6 | 2<br>28.0 | 36<br>33.8 | 5<br>35.8 | 24<br>34.3 | 3<br>32.3 | 12<br>41.5 | RAW<br>MEAN1 |
| OTHER PSYCHOS | 69<br>39.0 | 31<br>35.8 | 1<br>51.0 | 1<br>48.0 | 11<br>40.9 | 5<br>46.2 | 1<br>35.0 | 7<br>42.7 | 2<br>45.0 | 4<br>32.7 | 3<br>44.0 | 3<br>38.0 | RAW<br>MEAN1 |
| PSYCHO-PHYSIO. DISORD. | 10<br>44.8 | 5<br>44.0 | 1<br>30.0 | 1<br>69.0 | | | | | | 2<br>47.5 | 1<br>34.0 | | RAW<br>MEAN1 |
| NEURO-SES | 334<br>34.6 | 156<br>33.9 | 1<br>30.0 | 15<br>37.3 | 20<br>38.7 | 34<br>35.4 | 4<br>38.7 | 47<br>33.0 | 16<br>38.2 | 21<br>32.0 | 5<br>39.4 | 15<br>34.1 | RAW<br>MEAN1 |
| ALCOH. | 23<br>36.5 | 17<br>39.2 | | | | | 2<br>32.0 | 3<br>25.0 | 1<br>34.0 | | | | RAW<br>MEAN1 |
| DRUG DEPEND. | 17<br>25.1 | 2<br>22.5 | | | | 1<br>27.0 | 2<br>25.5 | 6<br>25.8 | 1<br>27.0 | 3<br>25.0 | | 2<br>23.0 | RAW<br>MEAN1 |
| OTHER PER.DIS | 110<br>30.6 | 49<br>30.8 | | 5<br>27.4 | 8<br>26.5 | 14<br>35.1 | 3<br>32.3 | 12<br>26.2 | 2<br>34.0 | 9<br>39.0 | 1<br>26.0 | 7<br>23.6 | RAW<br>MEAN1 |
| TRANS. SITUAT. DISORD. | 510<br>24.9 | 181<br>28.2 | 1<br>27.0 | 18<br>33.1 | 46<br>24.3 | 47<br>27.9 | 11<br>18.0 | 89<br>21.6 | 21<br>23.2 | 59<br>20.2 | 12<br>20.2 | 25<br>20.6 | RAW<br>MEAN1 |
| BEHAVIO DISORDS | 289<br>26.1 | 113<br>29.6 | 1<br>31.0 | 5<br>26.2 | 29<br>24.6 | 27<br>24.6 | 6<br>26.0 | 50<br>22.5 | 17<br>28.6 | 22<br>20.8 | 6<br>26.5 | 13<br>20.8 | RAW<br>MEAN1 |
| MENTAL RETARDA | 20<br>25.5 | 3<br>16.0 | | | 2<br>18.0 | 2<br>24.0 | 1<br>6.0 | 4<br>29.7 | 2<br>53.5 | 2<br>17.0 | | 4<br>28.0 | RAW<br>MEAN1 |
| NO MENTAL DISORD. | 56<br>26.1 | 22<br>27.6 | | | 2<br>10.5 | 9<br>44.1 | 2<br>38.5 | 8<br>19.2 | 2<br>13.0 | 7<br>19.0 | 1<br>10.0 | 3<br>12.7 | RAW<br>MEAN1 |
| DIAG-NOSIS DEFER. | 106<br>29.1 | 42<br>30.6 | | 2<br>28.5 | 8<br>29.7 | 9<br>28.2 | 2<br>22.5 | 26<br>23.0 | 3<br>35.0 | 9<br>39.0 | 1<br>13.0 | 4<br>33.2 | RAW<br>MEAN1 |
| OTHER | | | | | | | | | | | | | RAW<br>MEAN1 |
| MISSING | 82<br>32.4 | 27<br>31.8 | | 6<br>37.8 | 3<br>26.3 | 15<br>37.0 | | 8<br>26.0 | 6<br>40.0 | 6<br>22.5 | 3<br>41.7 | 8<br>28.4 | RAW<br>MEAN1 |

*ORGANIC BRAIN SYNDROME
**UPPER FIGURE REPRESENTS NUMBER OF ADMISSIONS.
LOWER FIGURE REPRESENTS MEAN AGE OF ADMISSION.

## TABLE 8
## TERMINATIONS FROM STATE MENTAL HEALTH FACILITIES, 1/1/81 TO 12/31/81 BY AGE AND DIAGNOSIS ON TERMINATION

CURRENT AGE BY MOST RECENT PRIMARY DIAGNOSIS

| | TOTAL | 0 - 4 | 5 - 9 | 10 - 14 | 15 - 17 | 18 - 19 | 20 - 24 | 25 - 34 | 35 - 44 | 45 - 54 | 55 - 64 | 65 & OVER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL | 5062 | 35 | 211 | 453 | 436 | 204 | 586 | 1487 | 789 | 399 | 254 | 208 |
| OBS* ASSOC. ALCOH. | 28 | | | | | | 6 | 4 | 3 | 6 | 6 | 3 |
| OBS* ASSOC. DRUG | 32 | | | | 2 | 6 | 7 | 10 | 4 | | 3 | |
| OTHER OBS* | 253 | 2 | 5 | 14 | 25 | 5 | 28 | 49 | 26 | 14 | 20 | 65 |
| SCHIZO-PHRENIA | 1041 | | 1 | 5 | 14 | 29 | 155 | 359 | 204 | 138 | 82 | 54 |
| OTHER PSYCHO-SES | 238 | | | | 3 | 5 | 21 | 69 | 61 | 38 | 27 | 14 |
| PSYCHO-PHYSIO. DISORD. | 15 | | | 1 | | | | 7 | 1 | 3 | 3 | |
| NEURO-SES | 547 | | | 13 | 14 | 9 | 71 | 211 | 114 | 54 | 38 | 23 |
| ALCOH. | 221 | | | | 1 | 1 | 19 | 92 | 53 | 40 | 14 | 1 |
| DRUG DEPEND. | 86 | | | 1 | 2 | 7 | 19 | 51 | 5 | 1 | | |
| OTHER PERSON. DISORD. | 367 | | 3 | 9 | 13 | 16 | 68 | 157 | 75 | 12 | 10 | 4 |
| TRANS. SITUAT. DISORD. | 1221 | 21 | 124 | 236 | 211 | 72 | 105 | 244 | 111 | 51 | 21 | 25 |
| BEHAV. DISORD. | 653 | 1 | 54 | 136 | 99 | 27 | 46 | 159 | 90 | 19 | 14 | 8 |
| MENTAL RETARD. | 103 | 2 | 4 | 13 | 12 | 10 | 8 | 24 | 13 | 7 | 8 | 2 |
| NO MENTAL DISORD. | 126 | 8 | 13 | 14 | 14 | 6 | 13 | 23 | 13 | 9 | 6 | 7 |
| DIAG-NOSIS DEFER. | 131 | 1 | 7 | 11 | 26 | 11 | 20 | 28 | 16 | 7 | 2 | 2 |
| MISSING | | | | | | | | | | | | |

*ORGANIC BRAIN SYNDROME

## TABLE 10
## UNDUPLICATED COUNT OF PATIENTS SERVED, STATE MENTAL HEALTH FACILITIES BY MOST RECENT DIAGNOSIS AND AGE, 1/1/81 TO 12/31/81

CURRENT AGE BY MOST RECENT PRIMARY DIAGNOSIS

| | TOTAL | 0 - 4 | 5 - 9 | 10 - 14 | 15 - 17 | 18 - 19 | 20 - 24 | 25 - 34 | 35 - 44 | 45 - 54 | 55 - 64 | 65 & OVER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL | 10689 | 56 | 428 | 937 | 814 | 322 | 1137 | 2966 | 1684 | 1001 | 758 | 586 |
| OBS* ASSOC. ALCOH. | 42 | | | | | | 4 | 5 | 6 | 7 | 10 | 10 |
| OBS* ASSOC. DRUG | 32 | | | | 2 | 4 | 10 | 11 | 2 | | 3 | |
| OTHER OBS* | 510 | 2 | 11 | 25 | 36 | 11 | 44 | 103 | 53 | 36 | 43 | 146 |
| SCHIZO-PHRENIA | 2329 | 1 | 3 | 11 | 16 | 31 | 241 | 631 | 454 | 390 | 344 | 207 |
| OTHER PSYCHO-SES | 422 | | | 1 | 2 | 8 | 25 | 97 | 95 | 83 | 63 | 48 |
| PSYCHO-PHYSIO. DISORD. | 36 | | | 3 | | | | 11 | 7 | 7 | 6 | 2 |
| NEURO-SES | 1206 | | 1 | 22 | 23 | 23 | 124 | 421 | 276 | 153 | 108 | 55 |
| ALCOH. | 327 | | | | 1 | 2 | 31 | 133 | 70 | 62 | 26 | 2 |
| DRUG DEPEND. | 180 | | | 2 | 5 | 9 | 39 | 103 | 16 | 4 | 1 | 1 |
| OTHER PERSON. DISORD. | 810 | | 4 | 18 | 19 | 18 | 171 | 341 | 157 | 43 | 28 | 11 |
| TRANS. SITUAT. DISORD. | 2328 | 26 | 214 | 480 | 383 | 117 | 199 | 470 | 223 | 105 | 54 | 57 |
| BEHAV. DISORD. | 1421 | 6 | 125 | 254 | 197 | 46 | 118 | 381 | 208 | 46 | 27 | 13 |
| MENTAL RETARD. | 228 | 3 | 11 | 22 | 17 | 13 | 27 | 53 | 27 | 23 | 24 | 8 |
| NO MENTAL DISORD. | 328 | 13 | 29 | 43 | 22 | 11 | 50 | 80 | 42 | 18 | 9 | 11 |
| DIAG-NOSIS DEFER. | 490 | 5 | 30 | 56 | 91 | 29 | 54 | 126 | 48 | 24 | 12 | 15 |
| MISSING | | | | | | | | | | | | |

*ORGANIC BRAIN SYNDROME

### TABLE 9
### TERMINATIONS FROM STATE MENTAL HEALTH FACILITIES, 1/1/81 TO 12/31/81
### BY COMMUNITY MENTAL HEALTH CENTER OR SERVICE AND DISPOSITION

COMPREHENSIVE MH CENTER OR SERVICE BY DISPOSITION ON TERM

| | TOTAL | CENTRAL OAHU | WIND- WARD | LEEWARD | DIAMOND HEAD | KALIHI- PALAMA | MAUI | EAST HAWAII | WEST HAWAII | KAUAI | HSH & CENTRAL SRVS | OTHER SRVS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PUBLIC PSYCH HOSP | 107 | 9 | 15 | 14 | 13 | 20 | 5 | 5 | 5 | 2 | 15 | 4 |
| OTHER PSYCH HOSP | 63 | 5 | 4 | 8 | 20 | 13 | 2 | | 4 | 1 | 3 | 3 |
| COMM M.H. CENTER | 344 | 41 | 23 | 35 | 34 | 58 | 2 | 5 | 13 | 19 | 113 | 1 |
| NURSING HOME | 7 | | | | | 3 | 1 | 1 | | 1 | 1 | |
| OTHER NON-PSY INPATNT | 56 | 4 | 3 | 6 | 9 | 9 | 3 | | 2 | 1 | 18 | 1 |
| OUTPTNT M.H. CLINICS | 49 | 6 | 2 | 4 | 8 | 18 | 1 | | | | 3 | 7 |
| PRIVATE PRACTCE MH PROF | 474 | 31 | 19 | 19 | 90 | 189 | 11 | 6 | 58 | 3 | 34 | 14 |
| SOCIAL COMMNTY AGENCES | 434 | 12 | 4 | 23 | 12 | 30 | | 9 | 10 | 2 | 320 | 12 |
| NON-PSY PHYSICN | 79 | 7 | 7 | 9 | 5 | 21 | 2 | 4 | 13 | | 7 | 4 |
| NOT REFER INNEED | 669 | 144 | 32 | 102 | 120 | 158 | 13 | 29 | 35 | 18 | 18 | |
| NOT REFER NOT NED | 1132 | 143 | 89 | 84 | 157 | 277 | 50 | 49 | 104 | 52 | 126 | 1 |
| UNKNOWN | 1390 | 122 | 92 | 139 | 240 | 313 | 160 | 107 | 168 | 34 | 15 | |
| OTHER | 271 | 31 | 13 | 16 | 53 | 72 | 8 | 8 | 13 | 9 | 39 | 9 |
| TOTAL | 5062 | 557 | 303 | 458 | 762 | 1171 | 255 | 226 | 412 | 142 | 710 | 66 |

# WAIMANO
# TRAINING SCHOOL
# AND
# HOSPITAL DIVISION

## WAIMANO TRAINING SCHOOL AND HOSPITAL

## SUMMARY

The population of Waimano continues to decline over the years, reflecting the emphasis on deinstitutionalization. However, the decline is not as rapid as in past years due to the difficulty in making successful community placements. As the level of functioning of the retarded patients is lowered, the difficulty in management is conversely increased.

Table 1 shows that in the past year of operation, the population decreased by 26 patients, from 423 at the start to 397 at the end. Other data show that patients added during the year declined. New admissions declined from previous years, as did direct discharges. Figures for both Returns from Community Placement (56) and Community Placements (80) show a duplicated count of residents moving in and out of Waimano. Actual revocations of community placements are 17 and those who were placed in the community are 38.

Table 2 shows that the trends in the category of classification remain about the same as in previous years, with the predominance of residents in the "Profound" category.

## TABLE 1
## WAIMANO TRAINING SCHOOL & HOSPITAL
## STATISTICAL MOVEMENT OF PATIENTS BY FISCAL YEAR
## STATE OF HAWAII: FISCAL YEAR 1980-81

| Waimano Population | 1973-74 | 1974-75 | 1975-76 | 1976-77 | 1977-78 | 1978-79 | 1979-80 | 1980-81 |
|---|---|---|---|---|---|---|---|---|
| Institution | | | | | | | | |
| Patients in residence at start | 705 | 702 | 638 | 588 | 535 | 482 | 446 | 423 |
| Patients added during the year | 60 | 34 | 31 | 52 | 66 | 84 | 65 | 63 |
| Admissions during the year | 37 | 17 | 10 | 12 | 13 | 13 | 12 | 7 |
| Returns from community placement | 23 | 17 | 21 | 40 | 53 | 71 | 53 | 56 |
| Patients removed from Hospital durin the year | 63 | 98 | 81 | 105 | 119 | 120 | 88 | 89 |
| Direct discharge | 4 | 5 | 10 | 7 | 4 | 5 | 3 | 2 |
| Deaths in hospital | 14 | 15 | 13 | 13 | 14 | 6 | 6 | 7 |
| Community placements | 45 | 78 | 58 | 85 | 101 | 109 | 79 | 80 |
| Patients in residence at end of year | 702 | 638 | 588 | 535 | 482 | 446 | 423 | 397 |

## TABLE 2
## RESIDENT POPULATION, WAIMANO, JUNE 30
## DISTRIBUTION BY YEAR AND MEASURED INTELLIGENCE
## STATE OF HAWAII: FISCAL YEAR 1980-81

| | Resident Population on June 30 | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 |
| Total | 702 | 638 | 588 | 535 | 482 | 446 | 423 | 397 |
| I. Mild Educable | 39 | 35 | 23 | 21 | 24 | 7 | 9 | 10 |
| II. Moderate Trainable | 135 | 107 | 94 | 85 | 72 | 35 | 30 | 29 |
| III. Severe | 244 | 226 | 209 | 193 | 174 | 65 | 53 | 53 |
| IV. Profound | 277 | 265 | 255 | 230 | 207 | 338 | 328 | 305 |
| Borderline | 6 | 3 | 5 | 5 | 4 | --- | 2 | --- |
| Undetermined Intelligence | 1 | 2 | 2 | 1 | 1 | 1 | 1 | --- |

1981 Statistical Report

Department of Health
ADMINISTRATIVE STAFF
December 31, 1981

| | |
|---|---|
| Director of Health | GEORGE YUEN, B.S.C.E., P.E. |
| Deputy Director of Health | JOHN F. CHALMERS, M.D. |
| Deputy Director, Administration | ABELINA MADRID SHAW, M.A., J.D. |
| Deputy Director of County/State Hospitals | HENRY N. THOMPSON, M.A. |
| Deputy Director, Environmental Health | MELVIN K. KOIZUMI, B.S., M.A. |
| Administrative Assistant | PETER A. SYBINSKY, B.A., Ph.D. |
| Chief, Administrative Services Office | CALVIN T. MASAKI, B.S., M.B.A. |
| Personnel Officer | HENRY TAKESHITA, B.A. |
| Health Education Officer | CHRISTINE LING, ED.B., M.P.H. |
| Health Information Systems Office | LEE E. CASTONGUAY, B.A. |
| Comprehensive Health Planning Officer (Interim) | KeNAM KIM, B.A., M.A. |
| Chief, Research and Statistics Office | THOMAS A. BURCH, M.D., M.P.H. |
| State Registrar of Vital Statistics and Assistant Chief | GEORGE H. TOKUYAMA, M.P.H., M.B.A. |
| Chief, Family Health Services Division | ROBERT E. LAURIE, B.S., M.D. |
| Chief, Crippled Children's Branch | PHYLLIS WRIGHT, M.D. |
| Chief, Maternal and Child Health Branch | HENRY ICHIHO, M.D., M.P.H. |
| Chief, School Health Branch | FRANCIS D. RIGGS, M.D., M.P.H. |
| Chief, Community Services for Developmentally Disabled | ETHEL YAMANE, M.S.W. |
| Chief, Communicable Disease Division | MONA BOMGAARS, M.D., M.P.H. |
| Public Health Veterinarian | VACANT |
| Chief, Epidemiology Branch | NED WIEBENGA, M.D., M.P.H. |
| Chief, Hale Mohalu Hospital Branch | ERIDA REICHERT, M.D. |
| Chief, Kalaupapa Settlement Branch (Interim) | OLIVER HASSELBLAD, M.D. |
| Chief, Tuberculosis Branch | HERBERT I. COHEN, M.D. |
| Chief, Dental Health Division | MANUEL C. W. KAU, D.D.S., M.P.H. |
| Chief, Dental Hygiene Branch | JOYCE H. HARA, DENTAL HYGIENE CERTIFICATE |
| Chief, Hospital Dentistry and Community Services Branch | MANUEL C. W. KAU, D.D.S., M.P.H. |
| Chief, Environmental Protection and Health Services Division | SHINJI SONEDA, M.S.S.E. |
| Chief, Pollution Investigation and Enforcement Branch | PAUL F. AKI, B.A. |
| Chief, Food and Drug Branch | KWAN KARL TOMOMITSU, B.S. |
| Chief, Noise and Radiation Branch | THOMAS M. ANAMIZU |
| Chief, Pollution Technical Review Branch | RALPH K. YUKUMOTO, M.S.C.E. |
| Chief, Sanitation Branch | TSUTOMU KUBOTA, B.A. |
| Chief, Vector Control Branch | PATRICK Y. NAKAGAWA, M.S. |
| Administrator, Litter Control Program | CLYDE B. MORITA, M.S., P.E. |
| Chief, Medical Health Services Division | ELISABETH ANDERSON, M.D., M.P.H. |
| Chief, Chronic Disease Branch | KLEONA RIGNEY, M.D., M.P.H. |
| Chief, Emergency Health Mobilization Branch | JOEL K. SIMS, M.D. |
| Chief, Hospital and Medical Facilities Branch | VACANT |
| Chief, Laboratories Branch | ALBERT I. ODA, B.S. |
| Chief, Nutrition Branch | FLORA THONG, B.S., M.S. |
| Chief, Public Health Nursing Branch | ROSE K. MOOREFIELD, B.S., M.P.H. |
| Chief, Mental Health Division | DENIS MEE-LEE, M.D., M.Sc. |
| Chief, Central Administrative Services | TIMOTHY I. WEE, JR., B.A. |
| Chief, Children's Mental Health Services Branch | CAROL BROWN, M.S., M.D. |
| Administrator, Hawaii State Hospital | HOWARD GUDEMAN, M.A., Ph.D. |
| Chief, Courts and Corrections Branch | JOHN BLAYLOCK, M.A., Ph.D. |
| Acting Chief, Program Support Services | SHIRLEY HAYASHI, B.A., M.S.W. |
| Chief, Alcohol and Drug Abuse Branch | KATHRYN CROCKETT, A.A., B.A. |
| Chief, Leeward Oahu Community Mental Health Center | FRANK BORUCH, M.D. |
| Chief, Diamond Head Community Mental Health Center | ANTONIO DY, B.S., M.D. |
| Chief, Kalihi-Palama Community Mental Health Center | LEONARD JACOBS, B.A., M.D. |
| Chief, Central Oahu Community Mental Health Center | SUNAO MURATA, B.A., M.S.W. |
| Chief, Windward Oahu Community Mental Health Center | CHESTER TAYLOR, B.S., M.D. |
| Chief, Hawaii Mental Health Center | JOHN MEBANE, M.D. |
| Acting Chief, Kauai Mental Health Center | ENSLEY UYENO, M.A., Ph.D. |
| Chief, Maui Mental Health Center | EDGAR AUERSWALD, B.S., M.D. |
| Hospital Executive Officer, County/State Hospital System | VACANT |
| Administrative Director, Hawaii County Hospital System | DONALD McGRATH, B.S., C.H.A. |
| Administrative Director, Maui County Hospital System | JERRY WALKER, B.S., M.B.A. |
| Administrative Director, Kauai County Hospital System | RICHARD JOHNSTON, B.S. |
| Administrative Director, Honolulu County Hospital System | ABRAHAM CHOY, B.S. |
| Chief, Waimano Training School and Hospital | GARRET YANAGI, Ph.D. |
| District Health Officer, Hawaii | VACANT |
| District Health Officer, Maui | SIDNEY B. CLARK, M.D., M.P.H. |
| District Health Officer, Kauai | ROBERT J. MELTON, M.D., M.P.H. |